



Sveriges lantbruksuniversitet
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Nature interpretation as the scene for a deliberative process and a medium for commoning?

– A study concerning the question of sustainability

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Abstract

Sustainability has been the global answer when looking towards solving pressing environmental problems. We need to create sustainability to ensure good living conditions for present and future generations. However the institutionalization of the environmental question has created a dominating environmental discourse unable to create solutions within the contemporary democratic frame. Nature interpretation has in this study been looked at as a potential institution for creating a deliberative space and a mediator for a process of commoning concerning the question of sustainability. Nature interpretations current approach towards the question of sustainability, as well as the institutions role within the contemporary democratic frame, has been analyzed. Five semi-structured interviews and four participatory observations have been conducted and from, together with a literature review, the base on which the analysis have been made. This study showed that the question of sustainability is included in nature interpretation activities at a very limited level and is based on a practical approach of how everyday life activities can become more sustainable. The approach of creating a deliberative space and mediating a process of commoning has not been pursued. The capacities of nature interpretation as an institution has developed within the capacities of current society and is therefore constituted by the barriers within society in regards to creating new capacities and enable a discussion of the values and ethics concerning sustainability. It has therefore shown that the structures within the contemporary democratic frame constitute the challenge of including the question of sustainability in nature interpretation activities, more so than the barriers connected to the practical approach of doing so.

Keywords: Sustainability, nature interpretation, deliberative space, deliberative democracy, commoning.

Preface

It is through my educational background that an interest for this topic developed. During my bachelor in *Natural Resources* I have acquired a firm basic understanding of nature and environmental aspects mainly from a natural science perspective. Several times during these years I found myself frustrated when discussing environmental issues and possible solutions to local as well as global problematics. An understanding developed that in most cases it is economic, political and/or sociological incentives that often get to decide the actions taken towards environmental problematics. Therefore I started to get more and more interested in environmental issues from a sociological perspective instead of my previous perspective of natural science. My specialization of *Environmental Management* within my master program *Environmental Science in Europe*, gave me the possibility to develop this interest further as an introduction course to environmental communication opened up for sociological theories and a new approach towards environmental issues. This nourished my interest and desire to also be able to understand environmental issues from a different perspective and developed a belief that the process of developing an efficient way to solve the still rising environmental issues and work towards sustainability needs to be found in an interrelated process. I believe that the concept of sustainability has some positive prospects attached to it while the connection to nature interpretation in this report is based on an interest to explore the settings created by the nature interpretation situation.

My sociological background prior to the process of conducting this research and writing this report was therefore limited which created some challenges along the way. My understanding and knowledge about social scientific work, conducting and analyzing interviews as well as making sense of complex social-philosophical theories posed a great challenge to my qualifications. However this challenge gave me the opportunity to develop myself, my understanding and my qualifications wish have been a process that I would not have been without.

Most nature interpreters and other actors I have encountered through this research process have been highly enthusiastic about the research and the topic of the report and found it highly relevant. This encouraged me to aim towards a report that can be read and understood by a variety of people, in the hope that this research can benefit a variety of readers with a variety of background.

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The process of writing this thesis would not have been the same without the support of many lovely people connected to this project in different ways. Through my research period of conducting interviews and doing observation I was fortunate to meet many interesting, devoted and inspiring nature interpreters who all met me with enthusiasm and create interest in the project. Many hours of interesting conversations have formed the essence of this report and the interest and enthusiasm towards the project inspired me to do my very best. For this I want to thank Arne Bondo-Andersen, Mette Åskov Knudsen, Jes Aagaard, Sune Møller Petersen and Jan Eriksen for their time and support in relation to conducted interviews. I would like to send a special thanks to The Danish Ranger Association who let me participate in their yearly conference and general meeting as well as a special thanks to all nature interpreters I have met along my travel of exploring this research. Further I would like to thank the nature schools who let me participate in events and took the time to talk.

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List of abbreviations

DNIS: Danish Nature Interpretation Service

DOC: The Danish Outdoor Council

DRA: The Danish Ranger Association

EAHl: European Association for Heritage Interpretation

NA: The Danish Nature Agency

IGN: Department of Geoscience and Natural Resource Management

VFN: Videncenter for Friluftsliv og Naturformidling

1 Introduction

Our very existence is threatened. Environmental problems is evident with rising global temperatures, polluted seas, exploitation of natural resources and degradation of farmland, all whilst the global population increases with a following increasing demand for life-sustaining resources. The reaction to these challenges has been a demand for scientific knowledge while “assigning the problems to institutions ill-equipped to cope with them” (Brundtland, 1987). These problems were recognized by the global agenda close to three decades ago. Almost 30 years have passed which has led many to ponder ‘Where are we now?’ Environmental problems are still evident, with temperatures continuing to rise and seas, farmland and natural resources being continuous exploited. The goal of a sustainable future is a continuous unsolved global dilemma. The reactions of the world have not moved beyond the demand for more scientific knowledge and assigning the problems to institutions with insufficient capacities is still the dominant approach, which have left today’s society facing the same problems as identified 30 years ago.

1.1. Sustainability – A political agenda or a common goal?

Since 1987 the term sustainability has been a considered element within global environmental political agendas. The starting point of this development was facilitated by the report of the Brundtland Commision, ‘Our common future’ and further nourished and developed through the United Nations Conference on Environment and Development (UNCED), in Rio de Janeiro, 1992 (Petersen *et al.*, 2007; Clausen *et al.*, 2010). This conference, also known as the Earth Summit, is seen by many as the offset of an international cooperation scheme towards a sustainable future on which the environmental discourse is developed (Petersen *et al.*, 2007). Sustainability has become a keyword within environmental policies (Elling, 2008; Clausen *et al.*, 2010) that creates a positive frame around every development plan. The most commonly known and most referenced definition of sustainability is the one offered in the earlier mentioned report of the Brundtland Commision, ‘Our common future’ (Brundtland, 1987):

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

In this definition the term sustainability is based on the subjective matter of needs. The quality of subjectivity makes it impossible to find one concrete solution for what sustainability is or should be. It can be assumed that needs are defined as human needs. Human needs are and will always be many folded and based on subjective views making the whole concept of sustainability difficult to deal with.

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Sustainability should not be seen as a goal but as a process (Hansen & Caselunghe, 2012) as there cannot be a goal for something there is no answer for. The future will be defined by the choices that are made in the present and thereby the future is defined by the norms, ethics and moralities today's society. According to Clausen *et al.* (2010) sustainability has two orientations – a strategic dimension concerning governance and regulative aspects as well as a critical dimension, criticizing the ways of present society and emphasizing a need of change. Clausen *et al.* (2010) argues that by integrating both the strategic and critical dimension of sustainability into the current frames of society crisis can inevitably be avoided. The current framework of society is by far based on science, which also forms the fundamental framework of the term sustainability (Brundtland, 1987). It is scientific knowledge that has led to a profound worry for society's current development in regards to the natural environment. Science is per definition looking at past and sustainability is per definition looking at the future. By defining sustainability within the capacities of a strategic and critical approach, it will evidently become about avoiding risks more so than identifying and removing the source of the problems. As a consequence there will be no means by which the moral and ethical aspects can be incorporated in the term sustainability (Clausen *et al.*, 2010).

Clausen *et al.* (2010), inspired by Gorm Harste, is calling for 'sustainability as a democratic term'. "...the democratic sphere is the only legitimate political sphere to deal with common visions and utopias for nature and society" (Clausen *et al.*, 2010. p. 232). This understanding is based on the possibilities of democracy to deal with moral and ethical questions within society as such values are essential in the creation of common visions. In connection to sustainability nature becomes the common for which society needs to create common visions. The belief in nature as a common constitutes the utopian dimension of sustainability and links it to the idealistic idea of democracy. Through this view sustainability becomes a collective challenge where nature is the bond that unites people with values of moral and ethics form the fundament of democracy. However, as argued by the sociologist Graham Smith (2003), current liberal democratic institutions fail to deal with the values connected to the non-human world and has shown itself to be insufficient in dealing with environmental considerations. Therefore, Smith argues that new capacities are needed to be able to link economic systems, public institutions and agencies, as well as the value of the environment. Other prominent sociologists, such as Anthony Giddens, Ulrich Beck and Bo Elling support this statement despite their differences in approaching the problematic. Theories concerning the democratic framework on which democratic societies are built become essential when it is realized that democracy in itself has to create the changes.

1.2. A deliberative process as the tool for commoning

In order to go further into the discussion of the idealistic idea of democracy, it is necessary to look into what constitutes democracy and how democracy is connected to the commons. The political sphere can be said to have two dimensions; the vertical (regulatory) and the horizontal (participation), see figure 1. The base of the vertical dimensions consists of politicians, laws, the court, the police, etc. The vertical dimension has different aspects of acting, either based on the constitutional model (for example liberalism) or preference aggregating model (market and institutions). The horizontal dimension is based on

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participation and deliberation. Participation focuses on the importance of participation in the basic meaning of the word and deliberation focuses on the *process* of the participation. In a deliberate democratic process, the interaction within participations are more important than participation itself (Andersen *et al.*, 2000).

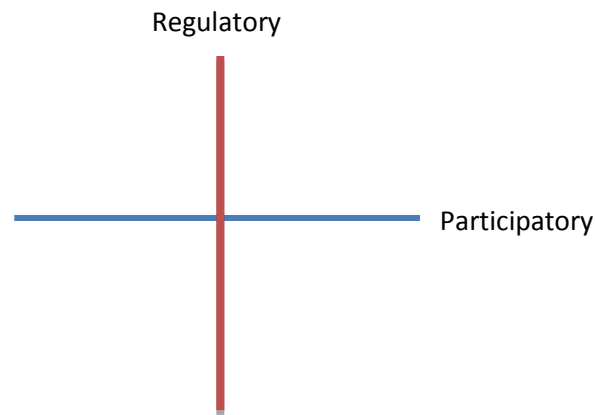


Figure 1: An illustrative description of the vertical and horizontal view on democracy (own production).

The two dimensions are integrated and one dimension cannot function without the other. The instrument of democracy rests on the horizontal dimension as without participation, such as voting, democracy cannot exist (Læssøe, 2007). In recent decades it has been a general critic that western society democracy is out of balance due to the lesser influence on the horizontal dimension (Andersen *et al.*, 2000). Many prominent sociologists have been trying to understand the origin of democracy. Terms such as 'modernity', 'risk society' and 'ecological modernization', to mention a few, have been developed and have created a discourse concerning the current state of society. Different sociologists have their own personal understandings of such terms but those understandings fall outside the scope of this report. It is merely mentioned to exemplify the extent to which these theories can be discussed. Most sociologists, as Giddens, Beck and Elling seem to more or less agree that there is an imbalance between the two dimensions of democracy. The horizontal dimension of participation is currently undermined by the vertical dimensions which have locked society to already established institutions unable to deal satisfactorily with the problems created by societies' development. This leads us back to the previously mentioned argument put forth by Smith (2003); current liberal democratic institutions fail to deal with the values connected to the non-human world. There is a growing concern that the distance between political decisions and the motives of the public is a significant limiting factor to the capacities of liberal representative democracy (Smith, 2003). This creates a significant limiting factor for dealing with the prevailing environmental challenges, such as sustainability.

The theory of deliberative democracy to strengthen the role of the public sphere has gotten much attention. However, the approach and theory of deliberative democracy has also been center for much critic. Especially the critics put forwards by Smith (2003) that argues that it is a great theory on paper but unrealistic in reality, is a common critic. Despite the critics,

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deliberative democracy has been a central approach as an attempted counteract towards the unsatisfactory contemporary democratic form since the beginning of the 90's (Parkins & Mitchell, 2005). As described by Parkins and Mitchell (2005), deliberative democracy focuses on debate and discussion of common concerns by creating a 'deliberative space' to enhance public dialogue for improved knowledge, understanding and opinions and thereby leads to higher quality of decisions. A higher quality of decision-making can ultimately result from such a space and provide insight to the issue of sustainability.

The concept of sustainability is per definition about the future concerning everyone in relation to the common of nature. Therefore the creation of a deliberative space concerning sustainability also comes to be a process of commoning. Rayner (2012) argues that commoning is the process of a collective psychological shift within a group where a common responsibility is acknowledged and a common is created. But one could argue that it could be more than that. As stated by Franz Nahrada in his contribution to the book 'The Wealth of the Commons: World beyond market and state: "...commoning is the product of a multitude of practices that may take many different forms, according to the nature of the collective resource it is built upon as well as many other factors."' (Nahrada, 2014). From this perspective, the process of commoning also depends on the qualities of the common. As sustainability is created from natural, social and political dimensions, the process of commoning also evolves within the dimensions of nature, society and politics. The aim of democracy is to discuss common goals which require a process of commoning in order to define what is common. Only when sustainability is seen as a common does it makes sense to use the democratic process. The process of creating deliberative space thereby also becomes a process for commoning.

The foundation of any commons lies within values and ethics making the discussion of values and ethic an essential discourse surrounding sustainability. The created discourse can then be developed based on the question of 'why' sustainability is needed instead of the present time discourse created based on the approach of 'how' we reach sustainability.

1.3. Nature interpretation as the scene of a deliberative process and the medium for commoning?

Sustainability is only a goal in relation to humans and the subjectivity of their needs. Hence, sustainability cannot be seen as a goal on its own. As democracy is the paradigm developed to deal with subjective common concerns sustainability should be developed within a democratic framework. As the common concern of sustainability is constituted in nature the idea of sustainability inevitably concerns nature. From this perspective it becomes interesting to look not only towards the already established institutions concerned with nature itself but also concerned human's relation to nature. In Denmark nature interpretation¹ has since its beginning in 1987 been growing to a well-known and well established institution within the Danish society concerning nature and nature in relation to humans.

¹ in Danish 'naturvejledning'

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In Denmark nature interpretation is generally described as the communication in and about nature. The form of nature interpretation is most often a guided tour in nature, where often a specific topic is in focus. The most basic goal of nature interpretation in Denmark is to give the participants a good experience in nature and at the same time create knowledge about nature. The idea of a Danish nature interpretation concept was initiated in mid-80 based on the need to inform citizens visiting nature about how to behave in nature and to inform, mainly the citizens living in the cities, about the qualities of nature. The Danish Nature Interpretation Service (DNIS) was permanently established in 1989 and has developed into an organized institution present in both the private and public sector. The organization of nature interpretation as well as some nature interpreters is financially supported through the Danish Outdoor Council (DOC) which makes the Danish system unique. The interest in nature interpretation has also been mentioned by Hansen & Caselunghe (2012) who note that nature interpretation could be an important medium to the process of sustainability as nature itself constitutes the process in two ways; 1) being the scene wherein change must occur (environmental management) and 2) being the scene on which the change will be initiated (social and political scene). As nature interpretation per definition is about nature it embodies the prospect of connecting these two aspects of environmental management and social and political scene through the common aspect of nature.

This research will focus on the possible creation of deliberative spaces to open up for a process of commoning as the process is determinant for the outcome. The importance of creating an outcome and making decisions in connection to sustainability will not be the focus of this research. The contribution of this report is not to offer answers to what sustainability is or why it is important but rather to focus on if nature interpretation as an institution concerning nature is including the dimension of sustainability within the theory of creating a deliberative space enhancing a process of commoning.

2 Aim and Research questions

This research aim to understand and illuminate to what extent the dimension of sustainability is included in the institution of nature interpretation. Through the incorporated dimension of democracy in relation to sustainability, the democratic dimension in relation to nature interpretation becomes essential. The overall research question will therefore ask: is the institution of nature interpretation including the dimension of sustainability and what is nature interpretations role within the contemporary democratic frame of society in relation to the question of sustainability? These topics are not easily interpreted alone. To fully understand the workings of nature interpretation it is necessary to consider the characteristics of the institution itself. To be able to link this with the workings of the democratic frame of society and the idea of a deliberative space it is also necessary to look further into the theory of these subjects. Therefore this report seeks to cast a light on the following questions and with a basis in those questions, evaluate the potential use of nature interpretation as an ambassador for sustainability:

- *What characterizes the contemporary democratic frame and what are the qualifications of a deliberative space?*
- *What characterizes the institution of nature interpretation and how does it relate to the general development of society?*
- *What is nature interpretations current approach towards the question of sustainability? And why is it so?*

Answers to these questions are sought through a qualitative approach to understanding the institution of nature interpretation in combination with a theoretical understanding of democracy and society to be able to illuminate the interactions of sustainability, democracy and nature interpretation.

3 Epistemology and Method

Epistemology is the philosophy of knowledge, what knowledge is and how it is achieved in the first place. It deals with the conception of knowledge that will here be seen from the aspect of qualitative research interviewing. This chapter will describe the understanding of phenomenology and the submerged understanding of hermeneutics as the worldviews this research is conducted based on. The method of the research is described following this approach.

3.1. Qualitative research interview

"The qualitative research interview attempts to understand the world from the subjects' points of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations." (Kvale & Brinkmann, 2009, p. 1).

Qualitative research interview is a method that differentiates from the "traditional" objective form of research as it is built on interaction between the researcher and subject. The goal of the research interview is to produce knowledge and the basic idea behind this method is based on everyday conversation in a professional manner. Through conversation knowledge is constructed as a result of the interaction between the interviewer and the interviewee (Kvale & Brinkmann, 2009). Thereby interaction becomes the essential part of research interview as it mediates the creation of knowledge originating from both the interviewer and the interviewee. Therefore, the research interview is different from the "traditional" objective form of research where the researcher is neutral in regards to subjectivity, interest and values. Qualitative research interview is based on the subjectivities of the human being, which allows the researcher to develop knowledge together with the interviewee. This method requires great skills and as noted by Kvale & Brinkmann (2009) excellent qualitative research is based on good craftsmanship.

Qualitative research interviews is not, however, an equal conversation like most conversations between friends. Interviews as a form of research are different from everyday conversations as there is a structure and a clear purpose to the conversation, a structure and a goal put on by the interviewer. The interviewer defines and controls the situation through questions and it is the overall research question that guides the overall goal of the interview. This may lead to power asymmetries that are not unlike those of an everyday conversational situation. Therefore, this power asymmetry is not accounted as a limitation. However, the feeling of inequality could affect the outcome of the interview as the interviewee could feel reluctant to answer some questions or create a barrier in the relation. The interviewer should be aware of this and take it into account during the interview and when analyzing the outcome.

3 Epistemology and Method

Qualitative research does not only consist of one method but can be carried out in many different forms. In this research the method of semi-structures interviews is used to obtain the necessary knowledge. Semi-structured interviews are defined as follows (Kvale & Brinkmann, 2009, p. 3):

“...an interview with the purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena.”

Semi-structured interviews thereby focus on the subject's experiences and description of how she or he experiences the theme, in this case nature interpretation, sustainability and deliberation. The understanding in this method is in part inspired by phenomenology which forms the underlying philosophy of the method.

3.1.1. Conception of interview knowledge within the life world of phenomenology

Phenomenology is a term that in general seeks to understand the world through the eyes of the actor and thereby describes the world as the subject experience it, with the important assumption that reality is formed from what people perceive it to be, while reality is what is forming the constructed perception. In this sense people are constructed by their everyday life, while it is the people that construct the everyday life (Kvale, 2008). This approach has an important influence on how the analysis of the interview will be undertaken as well as the interviews itself. In the interview itself it is important to reach an understanding of the theme through the description of the subject's view and to create an understanding of the lived world through the description of the subject's own perspective and reality (Kvale & Brinkmann, 2009). In this project the goal is thereby to reach a description of the interviewee's interpretation of nature interpretation and its role, possibilities and aim to add to a deliberative process leading towards the process of sustainability.

Kvale and Brinkman (2009) argue that there are twelve aspects of qualitative interview in relation to the phenomenological life world. Semi-structured interviews contain the qualities of these aspects and work based on them. It forms the understanding and essence of a semi-structures interview and the analysis thereof. The twelve aspects are explained by Kvale and Brinkmann (2009) as outlined in table 1, p. 9.

There are two contrasting ideal types of interview knowledge; collected or constructed. They are two different genres and consist of different views.

1. Collected knowledge: the researcher sees the interview as an isolated data collection situation where knowledge, that is already there, is extracted for use in further analysis. Data collection and analysis are seen as two different processes.
2. Constructed knowledge: the researcher sees analyzing as a part of the whole process, where the interviewer is actively analyzing and responding to information gained from the interviewee by adjusting the course of the interview based on the information gained. The goal is not to gain any specific answer but to get a description of the experienced world of the interviewee.

Table 1: The twelve aspects of qualitative research interview from a phenomenological perspective (Own production, Inspired by Kvale & Brinkmann, 2009, p. 28)

Life World	The topic of qualitative interviews is the everyday lived world of the interviewee and his or her relation to it.
Meaning	The interview seeks to interpret the meaning of central themes in the life world of the subject. The interviewer registers and interprets the meaning of what is said as well as how it is said.
Qualitative	The interview seeks qualitative knowledge expressed in normal language, it does not aim at quantification.
Descriptive	The interview attempts to obtain open nuanced descriptions of different aspects of the subjects' life worlds.
Specificity	Descriptions of specific situations and action sequences are elicited, not general opinions.
Deliberate Naiveté	The interviewer exhibits openness to new and unexpected phenomena, rather than having readymade categories and schemes of interpretation.
Focused	The interview is focused on particular themes; it is neither strictly structured with standardized questions, nor entirely "nondirective".
Ambiguity	Interviewee statements can sometimes be ambiguous, reflecting contradictions in the world the subject lives in.
Change	The process of being interviewed may produce new insights and awareness, and the subject may in the course of the interview come to change his or her description and meaning about the theme.
Sensitivity	Different interviewers can produce different statements on the same theme, depending on their sensitivity to and knowledge of the interview topic.
Interpersonal Situation	The knowledge obtained is produced through the interpersonal interaction in the interview.
Positive Experience	A well carried out research interview can be a rare and enriching experience for the interviewee, who may obtain new insights into his or her life situation.

When knowledge is constructed the perspective of the interviewee might change due to new perspectives brought forward by the interviewer and thereby the knowledge is constructed through the interaction of interviewer and interviewee. As such it can be understood that collected interview knowledge is close to the mainstream of modern social science whereas constructed interview knowledge is nearer to a postmodern constrictive understanding. In the postmodern epistemology "knowledge is neither inside a person nor outside in the world, but exists in the relationship between persons and world." (Kvale & Brinkmann, 2009, p. 53). The postmodern approach further emphasizes the linguistic and interactional aspects and the interview hereby becomes the construction site for knowledge production (Kvale, 2008; Kvale & Brinkmann, 2009).

This understanding of knowledge, although only one point of view among many others, is used to conduct this research and is seen in relation to knowledge conducted through interviewing. From this point of view Kvale and Brinkman defines seven key features relevant for interview knowledge, see table 2. These seven features create an understanding for the knowledge produced through interviewing, help analyzing the created knowledge and outline the underlying conception of knowledge chosen in this research. Even though these features here are outlined separately they should not be seen as separate understandings as they are interconnected, related and in some cases dependent on each other.

Table 2: The seven key features (Own production, Inspired by Kvale & Brinkmann, 2009)

Knowledge as produced	Knowledge is produced through the interaction of the interviewee and interviewer through the process of questions and answers. The production of knowledge continues through the processes of transcription, analysis and reporting
Knowledge as Relational	The created knowledge is both inter-relational and inter-subjective. The focus is on the knowledge created between the interviewee and the interviewer.
Knowledge as Conversational	Knowledge is created through conversation and it is thus conversation that gives access to knowledge.
Knowledge as Contextual	The knowledge created in the interview is related to the context of the interviewee and the interviewer as well as their interpersonal context. The meaning of the knowledge is based on these contexts.
Knowledge as Linguistic	Knowledge is constituted through linguistic interaction and the form of linguistic (example oral or written) has an influence on the knowledge produced.
Knowledge as Narrative	The interview is a prominent possibility of using narratives to describe the human world of meanings. Storytelling can thereby with its manifold qualities add to the prospects of the interview.
Knowledge as Pragmatic	Knowledge is the skill provided to be able to take action when human reality is understood as conversation and action.

The philosophy of hermeneutics and double hermeneutics is highly relevant when conducting interviews and understanding the knowledge production within the life world of phenomenology. Hermeneutics and phenomenology have many similarities when working with qualitative data. The difference between the two philosophies lies within the interpretation of data and knowledge. Hermeneutics focus on foreknowledge and understanding new knowledge in a context while phenomenology focus more on describing the experienced world (Kvale, 2008). In other words hermeneutics focus on interpretation while phenomenology focuses on description. As interpretation is dependent on many aspects there are different variations even within the theory of hermeneutics.

The understanding of hermeneutics affects the knowledge production in a double bounded manner which creates the perspective of double hermeneutics. In double hermeneutics, the

research and analysis is not only dependent on the interpretation of the world and context of the research in question. It also relies on the researchers understanding of the subject and the context the research is conducted in (Kvale, 2008). By this understanding, knowledge production, and the interpretation of it, becomes a circular process depending on foreknowledge, context and interpretation. This theoretical philosophy becomes interesting and highly relevant to keep in mind when conducting the interviews but even more so when analyzing the qualitative data. Why did the interviewee respond in a specific way and how did the interviewer's foreknowledge influence the questions asked? How does the interviewers foreknowledge and understanding of the context and subject influence his or hers reactions to knowledge put forward by the interviewee? A good example that we can all relate to, is the occurrences of misunderstandings in everyday life conversations when we perceive to know what the other person is talking about and react with an encouraging nod and a smile to make the person continue the story only to figure out in the end that the other person was talking about something completely different. Therefore when applying hermeneutics and double hermeneutics it is important to keep in mind that every knowledge gain meaning from a context. The new knowledge is put into an already understood context to be able to make sense of the new knowledge. Therefore it becomes essential to look beyond here and now and to keep in mind that history and tradition provides an important context that affects the meaning of the new knowledge to a given individual (Giorgi, 1992).

Different epistemological positions can thereby lead to different conceptions of interview research and is therefore important to keep in mind during research. The philosophy of phenomenology and hermeneutics will be the positions of this research creating the qualities described above. From these qualities the interviews are conducted based on some overall themes.

3.2. Method

This section is explaining the method used throughout the research based on the above described methodology. The context of a master thesis report in which this report is written have influenced the form of the report to be built up with an introduction, epistemology and method, a theory section, a review, analysis, discussion and conclusion. Both the theory and review creates an important background on which the analysis is built while important issues forming through the analysis is further discussed in the discussion.

The process of digging in to this subject have been a journey with constant learning and the process of outlining how and why nature interpretation have developed as it has was an important background knowledge for my understanding. It should be noted that the research topic have met create enthusiasm within the participants whom have been finding the research topic very interesting and highly relevant. Therefore the report is sought to be written in a form that is easy to understand as well as emphasizing the results most relevant for the contemporary situation of the development of nature interpretation in Denmark so that it can be read and understood by everybody that which to read it. In this way I hope that this research can contribute to the process of development within nature interpretation and be read both by decision-makers and nature interpreters as well as everyone else that find the topic interesting

3.2.1. Interview technique

The first few minutes of the interview situation is very important in the sense of setting the scene for the interview. For most knowledge to be developed during the interview the interviewee has to feel confident and secure to wanting to share personal views, feelings and experiences with the interviewer. This is the interviewer's responsibility by making the interviewee feel at ease with the situation. Therefore, it is important that the interviewer starts by creating a good contact by showing interest, understanding and respect for the interviewee's opinions and experiences. Equally, it is important that the interviewee feels confident about the objective of the interview and what the interviewer wants to know. To reach this point, a short introduction should be given before the interview starts. This introduction should define the overall subject and the purpose of the interview. Furthermore, the frames of the interview should be introduced so the interviewee feels confident with the use of a recorder as for example. Likewise, the interview should be followed up by a debriefing, to give the interviewee a chance to add further comments as well as to comment on the interview itself after the interview is ended.

A good interview question should add to the interview in two ways: thematically and dynamically. Thematically the question should contribute to the knowledge production and add to the theoretical aspect of the overall research topic. Dynamically the question should add by establishing a good interaction of the interview by keeping a good flow of the conversation, contribute to a positive atmosphere and invite the interviewee to share own experiences and feelings. The interview questions should be asked in an easy to understand, everyday language.

During the interview the interviewer can through his or hers question change the answer of the interviewee and in the process develop new knowledge with the interviewee. By asking the right question and challenge the answer of the interviewee, it can lead to new knowledge and insight. This can in some cases look like manipulating the interviewee into giving a desired answer or creating bias for a certain answer. However it can also be a part of the process of develop knowledge trough the interaction of the interviewee and interviewer. The interviewer often has pre-acquired knowledge on the subject which effects the production of new knowledge.

3.2.2. Interview guide

The interview guide focus on the main theme to ensure the interview stays on the right track as well as to insure that the maximum amount of knowledge within the theme is developed. It contains questions that can be used as guidelines during the interview. These should, however, not be seen as a manual for which questions will be asked during the interview. The development of the interview depends on the interviewee and the estimations the interviewer makes during the interview according to each individual situation.

When starting the interview, the topic of the research and interview will be explained as well as the circumstances surrounding the research. However, the topic of the research will be presented as concerning nature interpretation in Denmark without mentioning the link to

sustainability or democracy. By not mentioning sustainability and only focusing on nature interpretation it is avoided to pre-determinate the link between nature interpretation and sustainability and enable the interviewee to make the link on own initiative. This is important for the validity of the analysis. The frame of the interview will be explained making sure that the interviewee is comfortable with the use of a recorder. Furthermore, it is explained that if the interviewee wishes to say anything anonymously it is assured that it will not be cited or referenced in any way connecting it with the interviewee.

After the topic of the interview is presented the interview will be conducted based on the following outlined themes and sub-themes. These themes will help ensure the flow of the interview and that the most relevant knowledge will be produced. The questions asked will be attempted to be asked as open questions to ensure a good conversational flow and to invite the interviewee to share as much knowledge as possible.

The following themes and sub-themes wish to be uncovered:

1. The personal background of the interviewee

- Education and carrier
- First contact with nature interpretation
- Initial interest in nature interpretation
- Nature's role during upbringing, e.g. job of parents, place of childhood etc.

2. The history of nature interpretation in Denmark

- Before the institutionalization of nature interpretation in Denmark
- The start-up phase of the nature interpretation official system
- Important events up through the history

3. The educational system of nature interpreters

- The organization around it
- The significant/insignificant addition to nature interpretation in Denmark
- If not mentioned by the interviewee the link to sustainability will be presented – the role of and link to sustainability and the approach towards sustainability

4. Nature interpretation today

- Problems (if any identified) within the practice of nature interpretation
- Problems (if any identified) on the organizational level
- If not mentioned by the interviewee – the role of sustainability in nature interpretation and verse visa (the role of nature interpretation on sustainability)

3.2.3. Participatory observations

Participatory observations have existed as a scientific research method for many decades however it is not until recent years, with a general increase in qualitative researches, that participant observations became an often used and well-known data collection method. The method has its roots particularly within anthropological studies as many studies within this

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topic are conducted in the field with particular importance of interacting with the subjects researched. The outcome in these situations can be highly dependent on the researcher's ability to be involved and accepted within a community. As quoted in Guest *et al.* (2013, p. 78) "An observer is under the bed. A participant observer is in it".

Participatory observation can have many different forms and is a very flexible method highly dependent on the situation and what the situation requires in order to obtain the relevant data. Therefore, it is hard to define participatory observation as also described and as indicated by Kawulich (2005) many different definitions have been developed. However, the goal of participatory observation is to create a better understanding and insight to the research topic and thereby increase the validity of the study. The method is often most efficient when combined with other methods, as for example interviews (Kawulich, 2005). In this case the participatory observations can help clarify, investigate or deepen the knowledge created during interviewing.

As the method is developed to be able to adapt to each situations different types of data collection can be used within the field study (Guest *et al.*, 2013). Some examples put forward by Guest *et al.* (2013) are

- Observation notes/audio/video
- Casual conversations/informal interviews
- Semi-structured or structured interviews
- Counts of specific observations
- Process flow, e.g. recording common processes to develop a flow chart
- Lists and categories

In this study mainly observation notes have been relevant as well as causal conversations and semi-structured interviews. This approach has been chosen based on a personal estimation of the situation as well as in connection to the already collected data using semi-structured interviews. Using the same interview guide to preform semi-structured interviews within the observation process helps the analyzing process to be more structured and thereby helps the knowledge outcome as the two collection methods will be easier to combine.

To reach the qualities provided by this method the observations will be conducted with as high participation as possible. To promote this I asked prior to conducting the observation how I, in the best way, could interact in the situation. The form of the event conducted within this research presented some challenges in relation to collecting highest amount of relevant data. As the events all had the form of single events it limited the possibilities to reach a high level of interaction with participants and in some cases also with the nature interpreter hosting the event. This could limit the possibility of building trust, confidence and intimacy with the participants and host and thereby influence the outcome of the observations.

4 observations have been conducted. 3 of these were events carried out in relation to a nature school, where 2 of the 3 were events for children, see appendix 2. The last event of the 3 was a course for pedagogies to learn how to carry out insect tours in their everyday routines in their own institutions. The focus of the course was also to learn how to use the surrounding nature

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areas without being guided by a nature interpreter, see appendix 2. The last of the 4 observation was my participation on the yearly conference and annual meeting of The Danish Ranger Association, DRA, where I was present during the annual meeting, dinner and evening entertainment, see appendix 2.

3.2.4. Choice of participants

From my literature research it was clear that there were several important actors within the organization of nature interpretation in Denmark. DOC and the Department of Geoscience and Natural Resource Management (IGN), had clear defined responsibilities while the responsibilities of NA seemed to have changed but it was unclear why and exactly how. I started by contacting the responsible within IGN and DOC, Mette Aaskov Knudsen and Sune Møller Petersen. However I also needed to discover the development of nature interpretation up through history and wanted to talk with someone that have been involved in the process from the very beginning. During my research I had encountered Arne Bondo-Andersen several times as a person that seemed to have been one of the key persons in the start-up process during the 80's. Further on I used recommendations from previous interviews and encounters within the field. I was recommended to contact Jes Aagaard and Jan Eriksen as well as many more that I unfortunately did not have the time to contact within the timeframe of this research. Networking and recommendations was also used to navigate towards the observed event. Therefore my choice of participants have not been randomized however have been selected to be able to create a strong overview based on central characters within the institution of nature interpretation.

3.2.5. Reporting data

Data based on interviews: All interviews are recorded and these recordings can be obtained on request by contacting author of this report. As the goal of this research is the overall understanding of the topic, rather than a detailed analysis of small details such as specific wording, all interviews as well as observations is reported as resumes. These resumes can be found in appendix and it is this documentation referred to when using the interviews and observations as reference throughout the report. Interview 5 seems more extensive than the other interviews which mainly demonstrate that this interview had a longer timeframe than most others and is therefore not a result of a different method. However it should also be noted that my skills in conducting semi-structures interviews developed through the process and it is my personal feeling that the knowledge production during this interview was greater than the knowledge production within my first interviews.

Data based on observation: Observations as well as semi-structures and casual conversations during on observation are not recorded, taped or filmed. During observations notes have been taken to remember important details. The choice of not recording is a strategically choice to be able to be more present in the situation and to not be seen as a researcher within the given event. The limitations of this will be discussed later in this chapter while the benefits of being more part of a group are essential to gain a feeling and understanding of the event. I feel that this was obtained successfully as the participants, as well as the present nature interpreter, seemed to feel comfortable with my presence and was open to share their own perspectives.

Data interpretation: The data obtained through the interviews and observations made have been used to create an overview of the development of nature interpretation. This means that facts and not only opinions also are referenced by interviews. However historical facts that are in contradiction to written findings have been discussed and if written documentations are not found, facts is only used if two or more persons have been given the same information. Otherwise the facts are referred to as opinions.

3.2.6. Analytical method

As my method is based on the methodology of phenomenology and hermeneutics my analysis is based on the qualities and understandings within these worldviews. Therefore the analyzing is based on my understanding where I, as a researcher, become the instrument for analyzing the results found through the research. The analysis focus on aspects in regards to the two overall goals of the report with respect to the findings and seeks to create an extensive understanding of the objectives. Therefore the analysis is built up by two parts to first focus on the concern of sustainability which creates the base on which the further analysis of the perspective of a deliberative process is discussed.

All knowledge produced during interviews and conversations are seen as results. The impacts of the methodology used are not discussed individually. As it is a part of the methodology to produce the knowledge through interaction it is self-evident that my understanding as the researcher has influenced the results and the analysis. However the results are clearly presented through the resumes of the interviews and observations. Within the observations there is more room for interpretation based on my own understanding as my interpretation of observed events is not created knowledge through interaction.

3.2.7. Ethical concerns relating to the interview method

When conducting my interviews it became clear that the method of not clearly defining the object of sustainability gave rise to an ethical feeling of misleading the interviewee. It felt uneasy to explain my topic but leaving out the aspect of sustainability however as the conversation developed a mutual understanding of the topic was sought which created an atmosphere of common understandings for each other's perspectives.

The observations are kept anonymous because it is irrelevant to know the exact location of the observations. What can have an influence on the result is the setting in which the event occurred which is described. This should not be interpreted as something needs to be hidden but it does avoid that any readers will have predefined views on a certain location.

3.2.8. Methodological limitations

Interviewing is a craft, 'a work of art' to use the words of Kvale and Brinkmann (2009) and as most crafts interviewing is best learned by practice and through experiences as it requires certain skills. To be the perfect interviewer and achieve the most rewarding interview the

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interviewer needs skills that enable him or her to go beyond the bow of method and theory. The person as the interviewer becomes an artists. Flexibility, personal intuition and creativity become skills important for the interviewer to master, skills that only can be learned by experience and practice. The interviewer as a person becomes the method, the instrument used to obtain knowledge. Thereby qualitative research interviews goes beyond the frames of a method that can be mastered and learned through a textbook.

In the process of writing this thesis I have learned much about interviewing but my experience within this practice was limited. Before conducting the interviews in this research I have only a few interviews behind me (conducted during a field expedition within a course on 'Soft system Thinking'). While this does not necessarily compose a limitation I am aware of this fact and it should be noted that I myself have felt a clear development of own skills throughout the process.

The limitations of the methodology of semi-structured interviews and participatory observations have some similarities, naturally as interviews also can be a part of participatory observations. The biggest limitation is connected to the discussions of 'objectivity' vs 'subjectivity' and the issues connected with the different positions. The accepted and incorporated subjectivity within qualitative research methods shapes the research based on the limitations following the researcher (Guest *et al.*, 2013). As the researcher is the tool of the research the properties of the researcher is closely connected to the properties of the data collected. Within semi-structured interviews an example is the foreknowledge of the interviewer and the context the new knowledge is understood in relation to whereas an example within participatory observations is the limitations that personal qualities and relations can lead to.

I have felt that my understanding of nature interpretation have been developing through my research which have made my position and understanding different from for example my first interview to the last interview. This process is seen as a part of the knowledge production which has changed the context of new knowledge obtained throughout the process and is therefore not a limitation on its own. However it is important to be aware that the process of knowledge produced naturally has been dependent on previous understandings despite the use of an interview guide to guide the questions asked.

Another limitation within my observations is the choice of not recording the interviews conducted within these situations. Therefore, there is a risk that some of the knowledge produced here is lost as only headlines are written down and some details remembered. In this situation the foreknowledge of the researcher also becomes interesting, as this most likely have effected which details where remembered.

The analysis is based on 5 interviews and 4 observation situations. Generalizations based on these relatively few observations can of course be problematic and give room for uncertainties and as with every generalization there will always remain exceptions. However, the analysis is based on relations to general accepted theories of societal development and in relation to an extensive review of the factual development and organization of nature interpretation.

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Further, the interviewee's are selected based on their high relevance and central positions within the institution of nature interpretation. This has strengthened the reliability of the results when connected to a broader perspective.

In this project a lot of material has been produced and not all aspects could be included in this report. Many interesting examples have been mentioned and other dilemmas within nature interpretation have been found. This has opened up for an understanding of other problems within nature interpretation. However, as these lies outside the aim and research question of this report, it will not be further elaborated.

4 Modernity and Deliberative Democracy

The theory of modernity has been subject to much attention as to describe the development of society. To fully understand the dilemmas and challenges in present time, such as sustainability, it is necessary to look further into the concept of modernity and what it has brought along. In relation to the problematic put forward in this report this chapter will focus on the theories of Modernity, Risk Society and Deliberative Democracy mainly using the descriptions but forwards by Anthony Giddens (1990), Bo Elling (2008) and Ulrich Beck (1999).

4.1. Modernity and Risk Society

Amongst sociologists modernity is a well-known term used to describe a mode of lifestyle that started to develop in Europe since around the 17th century and have developed since. Some theorists divide the time of modernity into different stages although there seems to be a common understanding that from the end of 19th century western societies is moving into a new time that is different from what modernity represents. Many different terms have been suggested to describe this period of transition as for example post-modernism, post-industrial, reflexive modernity to mention a few (Giddens, 1990). However, as the objective of this chapter only is to create general understanding of the development, discussion of the different terms will not be further elaborated.

Simply put; modernity is the time of science, understood in the sense that science changed the beliefs, values and ethics of society. This development has been described by many different theorist that all have each their perspectives and different views on different specifics within the development. However, to create an understanding of the problematics of dealing with sustainability within the democratic dimension, theorists like Anthony Giddens, Ulrich Beck and Bo Elling will be at focus. Without going further into the origin of these theories (and of sociology at large) these theorists are more or less inspired by the work of the well-known sociologists Habermas and Marx. This is mentioned to create a notion that the theories used to describe the development within society, as for example modernity attempting to understand where we, as societies, are, how 'we' got here and where 'we' are going, should also be seen as a process. This is important to note as the evidence of such a process within theories, and the understanding as such, constitutes the implication of the challenges in society – nothing is stable. It becomes easier to deal with the challenges (and the theories enabling us to talk about the challenges) if the character of a process is acknowledged and it is accepted that 'we' are a part of that process.

Before science started to become a part of society, the beliefs on what was right and wrong was determined by the king or by the church. Up through time, religion has been rationalized and the use of technology has given us a feeling that everything is controllable. This belief has led to a separation between humans and nature that is characteristic for today's society.

Nature is no longer seen as something humans are part of, but more something that we can control. This separation is evident in present time as nature is something we discuss, talk about and manage rather than having a personal feeling of responsibility towards. This description seems to be a general accepted understanding and both Giddens (1990) and Elling (2008) is supporting this understanding. Giddens and Elling emphasize that the belief in science and the rationalization of religion have highlighted the importance of ethics, as the ethics within science is what shapes the development within society. When no overruling truth to navigate from, such as religion, can tell us what is right and wrong, it is up to society to question and decide this in every step of development. Science develops new possibilities all the time which challenge the society to keep defining what is right and wrong but also to decide how to use the knowledge and possibilities created by science. This notion of ethics has, from the view of Giddens and Elling (despite their differences), come to constitute the questions and discussions of how we can and should deal with the contemporary problematics of society. However, before going further into the understanding of this it is necessary to look further into the problematic.

Science nourished a development that led to the modern lifestyle. With the industrialization came a different form of life which changed the form of whole societies. However, in the beginning of the 60's the limitations of modern time started to show. Environmental problems became evident (Giddens, 1990; Elling, 2008) and several environmental catastrophes with pollution, dying seas and eroding landscapes had become a global problem. The limitations of modern time became a global theme up through the 60's and 70's (Giddens, 1990) where it became evident that science itself created the problems. The knowledge production that was, up until this point, the center of development now became the base of uncertainty and it became clear that science could not provide the answers and solutions needed to solve the problems. The consequences of this realization are what Beck (1999) describes as *Risk Society*. Beck argues that the risk connected to the uncertainty and unknown consequences of the developed world's actions forms a dilemma where the solution cannot be found within already existing capacities as science cannot provide a clear answer. Giddens support Becks notion of risk society and further argues that politics within modern time by far is based on science and therefore fails to deal with existing environmental problematics (Giddens, 1990). If we look at society today the paradox of modernity is still not solved and the political sphere is still struggling to deal with the uncertainty of science and the disagreeing facts. If the 'scientific truth' cannot be found, the answer must be found elsewhere. This leads us back to the notion of ethics. If scientific truth is an illusion, the answer must be found elsewhere. It becomes a choice based on a belief in what is right and wrong. Science took the place of religion and the King as the answer to this question and as science showed to be incapable of providing these answers the modern problematic is about finding the answers to these questions elsewhere.

As argued by Elling (2008), Beck connects the development of the Risk society to the fact that society has become reflexive. Beck and Giddens characterize the changes within modernity the last decades as reflexive which they describe as *Reflexive Modernity*. It has become possible and even necessary for each individual to choose every action from a number of possible actions available. Science nor religion nor the king will decide what to do, which further leaves the question of what is right and wrong to do, to each individual. The development of

individualism has led to a characteristic of being reflexive as prior to every action the individual has to weigh the different options with different effects attached to it. This again leads us back to the aspect of values and ethics and the rationalities hereof. When focusing on environmental issues Elling (2008) argues that nature, through environmental crisis, has claimed its own value and shown that nature cannot be manipulated without consequences that lie beyond the control of humanity. From this perspective nature becomes the ethical problematic of the modern problematic which emphasize the importance of discussing ethics within environmental politics.

As a reaction to the central environmental issues resulting from the industrialization of society, different NGO's started to demand actions to deal with the prevailing problematics. The answers to these demands were developed within the culture of modernity which led to an institutionalization of the environmental question. In Denmark the environmental discourse has changed drastically up through time. In the 70's it challenged the foundation of values and the idealistic idea of democracy. In present time, it mainly takes a practical approach concerning which environmentally friendly techniques can be used by the public in their everyday life. By this the discourse have limited all attention of the barriers, dilemmas and the difficult choices connected with the question of sustainability (Læssøe, 2007). Thereby, the present environmental discourse does not invite for a discussion about the underlying ethics and values for 'why' sustainability is important in the first place. As a result, a general delusion has been allowed to form as society has deceived itself into thinking that the question of sustainability is included in every aspects of society (it is mentioned in every development plan for example), while at the same time society is still developing in an unsustainable manner (Læssøe, 2007). Therefore, a dominant environmental discourse in the public and political debate without any real effect has been possible. As for example with the term sustainability that has, as mentioned earlier, become a positive framed word, used to create associations to a well-thought, long lasting, environmental friendly plan. Everybody within a western society knows the phrase sustainability although no one knows what it looks like. Everybody is waiting for someone (science) to develop a solution so we don't have to take the consequences of our previous actions. This possibility is created by the uncertainties of science and made possible by the institutionalization of the environmental discourse. A discussion of 'why' sustainability is important is needed to create attention on the barriers, dilemmas and the difficult choices connected with the question of sustainability and break out of the neutralized discourse. As sustainability has to be dealt with within the democratic frame, new capacities are required to be able to create the discourse needed. To this, the theory of a deliberative democracy has attracted much attention.

4.2. Deliberative democracy and the deliberative space – a room for commoning

In relation to sustainability deliberative democracy becomes important due to the qualities the process of deliberation brings into the discussion. As said by Smith (2003, p. 53) "...deliberative democracy [] promise institutions that promote democratic deliberation (inclusive and reasoned political dialogue), which will be sensitive to the plurality of environmental values and which will promote political judgment that takes into consideration different perspectives on the non-human world.". Smith further highlights the importance of inclusive and

unconstrained dialogue as two fundamental characteristics in the process of deliberative democracy. Inclusiveness relates to the feeling of equality in the process as everybody, both citizens and decisions-makers have the right to be heard and influence the process with equal voice. Unconstrained dialogue adds to this with the focus on deliberative communication where people despite of their social and political status become a part of the process. There is no goal of consensus as the goal is to create understanding. In theory, these characteristics lead to an improved flow of knowledge and give the participants the possibility to broaden their own views and perspectives by influence of other's views, knowledge and experiences. Through these characteristics, a deliberative process have the ability to encourage "mutual recognition and respect and is orientated toward shared understanding and the public recognition of the common good." (Smith, 2003, p. 63).

The deliberate process thereby becomes about mutual understanding more so than consensus towards what is right. These characteristics of a deliberative process make it interesting in relation to sustainability. As sustainability inevitable is about common good, there is a need to include and discuss actions carried out from a self-interested perspective which affects common goods. Thereby the ethical aspect of the human-nonhuman relation becomes important and a deliberative process has the theoretical ability to create a room to discuss such aspects by creating deliberative spaces as mentioned earlier. By this process the formation of a deliberative space creates the link between the regulatory and participatory, here called public sphere as described earlier. It is by creating this link that deliberative democracy is formed through a deliberative process by creating a room where the underlying ethical aspects can be discussed in a room for commoning that is separated from the institution of politics, see figure 2.

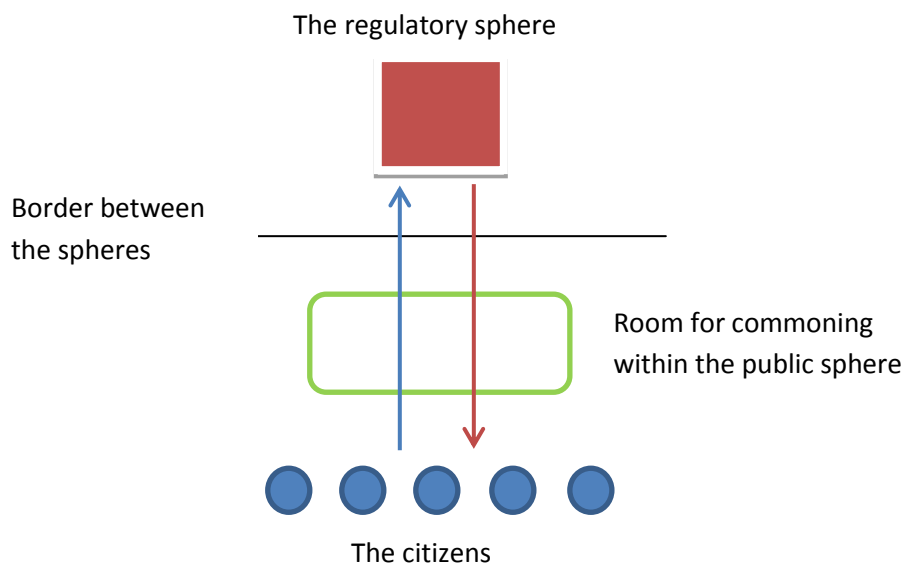


Figure 2: A visual presentation of the border between the regulatory sphere and the citizens. A room for commoning within the public sphere creates a deliberative space where the values and ethical aspects of sustainability can be discussed and thereby diminish the barrier created between the regulatory sphere and the citizens (own production).

Commoning is the process of a collective psychological shift within a group (Rayner, 2012) where a common responsibility is acknowledged and a common is created. If sustainability is to be seen as a common responsibility it becomes evident that commoning is needed. To create a feeling of a common responsibility, participants must feel included in the process which is why a deliberative process becomes interesting. If no responsibility is given, no responsibility can be taken. The foundation of any commons lies within the values and ethic of what is common and thereby constitutes the essence of the sustainability thought. A common responsibility feeling must therefore be developed through a discussion about the ethical view of the commons. Such a room for commoning can be argued to be created through different approaches and in different settings. It therefore becomes interesting to look further into if this process is established in some of the existing institutions of the Danish society. From this view, the institution of nature interpretation makes itself interesting as an institution with the possible potential of creating a deliberative space as the concept of nature interpretation, like sustainability, is created based on nature.

5 Nature interpretation in Denmark

This chapter is used to describe how nature interpretation has developed through time and what is characterizing it in present time. An understanding of what drives nature interpretation as an institution and which factors influence the organization of it. This knowledge is essential to be able to analyze the objective of this report and to analyze if and how the aspect of sustainability is included and further to be able to discuss if nature interpretation could be seen, or is already seen, as a deliberative space for a discussion about the ethics and values surrounding nature and the concept of sustainability.

5.1. A historical outline – the institutionalization of nature interpretation in Denmark

In recent decades it has become a coming notion that people in general has become disconnected to nature. In Denmark this development is historical connected to the industrialization up through the 19th century causing a change in the farming culture that had been characteristic for Danish society up until the climax around 1950. Technology changed, as for example horses was replaced with tractors and the use of chemicals and artificial fertilizers increased drastically (Pedersen, 2015). At the same time a growing industry in the cities promised a better life which caused a rapid increase of citizens living in the cities. A difference in attitude towards nature started to show (Bondo-Andersen, 2012) and the new generations growing up in the cities used the nature based on other needs than the before dominating farming life which created new challenges. A need to educate people about how to behave in nature became evident (Bondo-Andersen, 2012). Today's society is based on this industrialization causing that the majority of citizens lives in cities and nature has for many become something that is 'out there'. Nature is a room to visit, have fun and be active in as running, mountain biking, canoeing and the like is how most people visit nature in present society. This development shows that the human-nature relation is close connected to the development within society and vice versa. The understanding for natures as the inevitable essential base of human's existence has been alienated by the capitalism. When this is said, every human being has some relation to nature despite any development and as expressed by Schnack (2001) as choosing not to watch the latest television-show about lions or the rain forest is as much a relation to nature as choosing to spend the whole summer hiking through the Alps. And as a journalist writes for the webpage Mother Nature Network; Being in nature "is a minimalist communion between humans and their habitats" and the basic spirit of being in nature hides inside all of us (McLendon, 2014), despite differences in ways of connecting. The need of contact with nature became evident from an increasing amount of visitors at popular nature sites back in the 70's and it was the change in attitude and use of nature that started the thoughts of a Danish nature interpretation system, to deal with the growing disconnection towards nature.

5.1.1. The institutionalization of nature interpretation

The Danish Nature Interpretation Service (DNIS) was institutionalized in 1989 however at this time nature interpretation was not a new concept as such. The first examples of direct information about nature, the use of it and why it is important to care for, started to show in the early 60's as especially NGO's demanded focus on environmental issues, as described earlier. However also before this time was a focus on nature areas as Denmark in the 30's peaked with 76% of total area designated as farmland, a percentage that overall have been declining ever since. It was from many different fronts the focus on nature was facilitated, both from governmental organizations to schools and other public institutions. 'Fredningsstyrelsen'² issued brochures, posters, distributed educational material to schools about preservation and produced three TV programs and send out brochures with information and rules about how to act when visiting nature. In the County Administrative Boards nature interpretation and information about nature and preservation work was seen as an important part of nature management. The State Forest Agency issued in 1964 leaflets with inspiration and information about hiking trails and started to establish facilities such as specific walking and riding trails and picnic and parking areas. 'Statsskov-væsenet' also actively hosted guided tours. In 1971 the first nature school was established and the second followed in 1972, both serving an important part of 'statsskov-væsenets' nature interpretation activities. In 2009 there was approximately 70 nature schools in Denmark (Gyldendal - Den Store Danske, 2009) which we will return to later. In the early 80's



The Danish Outdoor Council (DOC), founded in 1942, is a non-governmental organization that aims for the promotion of outdoor recreation for organizations as well as the general public with considerations of the environment and nature protection. The Danish Outdoor Council functions as an umbrella organization with 94 individual member organizations, all national organizations that together represents interests as outdoor recreational activities to nature protection. All member organizations is represented in the governing authority of DOC, the General Assembly, while the daily operation is managed by a board and carried out by a secretariat. DOC posts on their homepage several goal or pursuits for their organization in which they note a 'desire to promote sustainable development both locally and globally' as the foundation for constantly assess and develop own efforts within outdoor life, nature and the environment (Friluftsrådet, n.d.). DOC is responsible for distributing the 3,39% of the total yearly profit of 'Danske Spil' given to the Ministry of the Environment to support outdoor life activities (friluftsliv). In 2014 66,6 million was given to 580 different projects supporting outdoor life in Denmark. The overall distribution of the profit is based on a legislation ratified in 2012 (Danske Spil, n.d.). It is based on this law that the Ministry of the Environment is granted 3,39% and based on this law

² Fredningsstyrelsen was established in 1975. In 1987 it was transformed into the current NA (Gyldendal - Den Store Danske, 2015)

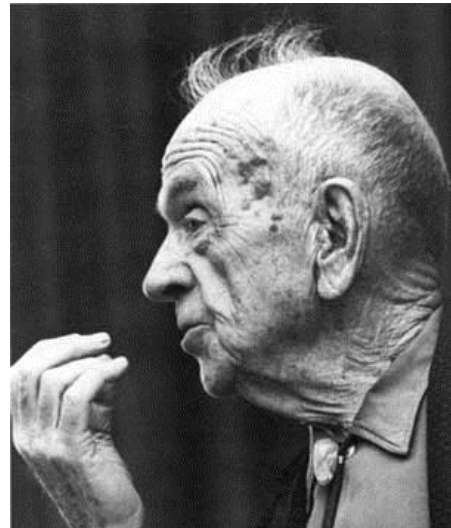
the Danish tourist organizations launched the concept of 'active holiday' with guided tours to different nature areas, giving information about the landscape. Also within different organizations as for example the Danish Society for Nature Conservation (DN), Danish Ornithological Society and biking and hiking associations have a long history of issuing information material and guiding tours with informative input (Fredningsstyrelsen, 1985).

The process leading up to the establishment of DNIS in 1989, was initiated in January 1983 when 'Fredningsstyrelsen' established a committee responsible for looking into the prospects of a Danish nature interpretation system and education. The committee was to follow the already existing activities within the field of nature interpretation and to evaluate and make proposals to further actions of an organized system. This advising committee was represented across institutions and interest groups as represents from the agriculture- and forestry sectors, museums, green organizations, educational institutions as well as relevant ministries was involved. This process was initiated by the previous explained development within the society which created a need to deal with the increasing interest in outdoor activities as well as environmental issues. Nature interpretation was at this point a concept well developed in USA and England that had showed positive influence within the same issues as Denmark was dealing with. Therefore it became interesting to look more into this concept which is why the Ministry of the Environment in close cooperation with 'Fredningsstyrelsen' and the Danish Outdoor Council (DOC), see textbox page 25, send a delegation on study trips to USA, Scotland, England and Holland to look more into nature interpretation (Interview Eriksen, 2015). Danish nature interpretation is therefore in the beginning phase inspired especially by names as Freeman Tilden from USA and Don Aldridge from Scotland, see textbox page 27 (Interview Bondo-Andersen, 2015; Interview Eriksen, 2015).

Based on recommendations put forward by the advising committee in the report 'A Danish Nature Interpretation System?' (Fredningsstyrelsen, 1985) a pilot project was established in 1986, starting with 12 nature interpreters attached. The recommendations also stated the importance of building on existing activities within the field (Fredningsstyrelsen, 1985) which further nourished that the Danish approach towards nature interpretation took form based on Danish traditions of public information and communication (Bondo-Andersen, 2012). As the Danish form was seen as being different than the, at the time established American and Scottish concept of nature interpretation, it was decided that a different term than the English 'Ranger' should be used for the Danish concept. After involving the public by trying to find a suitable term through a radio context (the book says TV and Jan says newspaper, politikken) the term 'naturvejledning' was settled within DNIS (Interview Bondo-Andersen, 2015). The direct English translation of this term is nature interpretation.

The thought behind the establishment of this pilot project was not only to avoid conflicts but was also seen as an important political instrument. The importance of the public opinion in the political democratic frame was acknowledged as nature interpretation was also thought as an instrument for environmental policies to ensure a public understanding towards the importance of taking care of nature and the environment. The first task and goal of nature interpretation was defined to teach visitors in nature to be considerate of nature, the local community and each other (Bondo-Andersen, 2012). The form of the activity was in the

Freeman Tilden (1883-1980) was a great inspiration to many nature interpreters around the world and has through his work influenced nature interpretation worldwide. He worked as a writer and journalist when he in 1951 published his first work about national parks in USA. His most important and most well-known book was published in 1957 and had the title *Interpreting Our Heritage*. In this book he outlined six principles of interpretive communication and thereby helped build a frame around the profession of interpretation. The six principles live on till this day and continue to be a great inspiration for the interpretation in the national parks in USA. The six principles are (Heritage Destination, n.d.):



Freeman Tilden, 1969 (Wikimedia Commons, 2010)

1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
2. Information, as such, is not Interpretation. Interpretation is revelation based on information. But they are entirely different things. However, all interpretation includes information.
3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical, or architectural. Any art is to some degree teachable.
4. The chief aim of Interpretation is not instruction, but provocation.
5. Interpretation should aim to present a whole rather than a part, and must address itself to the whole person rather than any phase.
6. Interpretation addressed to children (say, up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

Don Aldridge (1930-2008), building on Freeman Tilden's approach to interpretation (EAHI, n.d.), focused and developed the training and education of countryside interpreters in Scotland and designed the training courses for interpreters in Britain during the 1970's. He focused on the importance of showing the public why it is essential to preserve country-parks and nature areas (The Scotsman, 2008). Don Aldridge is seen to have had an important influence on the development of nature interpretation in Scandinavia as he, amongst others, inspired the development of nature interpretation, often connected to environmental issues (EAHI, n.d.).

beginning mostly traditional one-way communication event, focusing on given information to the participants where the interpreter was the 'teacher'. However already within the first years this changed as the frame around nature interpretation became about involving the participants in the activities and the focus was changed to be about informing to be more about experiencing the nature and being a part of the event.

Already within the time of the trial period from 1987 to 1989 a system for education was established, again based on the recommendations of the committee, and the nature interpreters were sent on their first educational course in 1987. The minister of the Environment at the time, Christian Christensen, gave a speech in this occasion and stated that "Nature interpretation shall be forefront for the necessary environmental policy in Denmark... ..there is to be created a public opinion for nature and the environment through experiences and engagement" (Bondo-Andersen, 2012, p. 8), thereby stating the governmental supporting attitude towards the this pilot project and its anticipated role it was going to have in society. This educational system is in its overall form the same today as was established in this beginning phase. The form of the education will be elaborated later in this chapter as an important part of what constitute nature interpretation today. The owl was accepted as the official logo representing educated nature interpreters (the same owl as is used today, see figure 2) marking the establishment of a new concept developed to be a part of the Danish population nature experiences.



Figure 3: The owl is inspired by the Chinese symbols yin and yan that amongst others represent a "divine interpretation of nature's glory" (DRA, n.d.a.)

As described here nature interpretation was from the beginning a part of a political institution, initiated within the government. It was partly created to teach the city people how to behave when visiting nature and partly created to establish an understanding and support within the public towards the environmental policy. The foundation of nature interpretation in Denmark is therefore based on the institutions surrounding the environmental discourse as discussed in previous chapter. The problem of sustainability is realized however it is sought to be solved within the institutions already established encouraging a discourse based on politics and thereby by scientific knowledge. The question is then how nature interpretation developed after it was implemented and how nature interpretation have been interacting with society up through time since this beginning phase.

5.1.2. The development of nature interpretation in Denmark

With the recommendations put forward by the advising committee in the report 'A Danish Nature Interpretation System?' from 1985 an objective and a goal of nature interpretation was defined, see table 3, p 30. The objective and goal serve as a fundament and guideline for nature interpretation as nature interpretation should work towards obtaining the objectives and fulfilling the goals. The development of nature interpretation was based on these

Table 3: An overview of the objectives and goals for nature interpretation put forward up through time in different written documents (own production, inspired by Bondo-Andersen (2012))

1985: From the rapport 'A Danish Nature interpretation system?'	1992: After the conference in Rio de Janeiro	2005: From the rapport 'Action-plan: Nature interpretation in the 21 st century'
<i>Objective of nature interpretation</i>		
Nature interpretation is a description as well as an explanation of the characteristics of a landscape which leads to experience, knowledge, respect and concern for the nature and the environment	Nature interpretation is a description as well as an explanation of the characteristics of a landscape which leads to experience, knowledge, respect and concern for the nature and the environment	<ul style="list-style-type: none"> • Nature interpretation gives the participants direct experiences in nature • Nature interpretation communicates a holistic worldview where nature and the cultural environment are communicated as products of the foundation of nature, the processes of nature as well as humans effect on nature • Nature interpretation gives opportunities to gain experiences and knowledge on the foundation of nature as well as societies management of nature, the environment and the cultural environment.
<i>The goal of nature interpretation</i>		
<p>To communicate:</p> <ul style="list-style-type: none"> - That nature is the landscape, the sea, the climate, the plants, the animals. It is a part of the history and culture to which humans are also connected and is dependent on and effecting - That nature should be used as well as protected - About nature as the foundation of the industries and outdoor life of an area - About the written and unwritten rules for use of the landscape 	<p>To communicate:</p> <ul style="list-style-type: none"> - That nature is the landscape, the sea, the climate, the plants, the animals. It is a part of the history and culture to which humans are also connected and is dependent on and effecting - That nature should be used as well as protected - About nature as the foundation of the industries and outdoor life of an area - About the written and unwritten rules for use of the landscape - About national and global environmental conditions and to contribute to a sustainable lifestyle - About nature in the cities and the correlation between the city life and the environment 	<p>The goal of nature interpretation is to:</p> <ul style="list-style-type: none"> - Strengthen the public's understanding for nature, including biodiversity, as well as the environment and the cultural environment - Strengthen the public's recreational opportunities and outdoor activities - Strengthen the public's direct inclusion and involvement in nature- and cultural environment management - Inspirer to a healthier and more sustainable lifestyle

definitions up until 1992, where the first update of the objectives and goals was conducted. Only two goals were added as the only change as the objective stayed the same.

One of the two additional goals was focused on sustainability. It is not a coincidence that this year also was the year of the previously mentioned UN conference in Rio de Janeiro. This conference had a significant impact on global environmental policy and awareness with the statement that something needs to be changed in our way of using resources on the planet. This notion did not go unnoticed in the development of nature interpretation, which is reflected by the acknowledgment of directly mentioning the goal of contributing to sustainability by nature interpretation activities. Nature interpretation had in this time established itself as a concept, well received by the public. The tours were popular and the governmental attitude towards nature interpretation was positive and supporting. It was still seen as a tool for creating awareness towards environmental issues. As a result of this positive development 1992 was also the year that 'Naturvejlederforeningen', translated as the Danish Ranger Association (DRA), was founded, working as a network for nature interpreters. From here the organization grew, with 24 new interpreters educated every year. The municipalities especially wanted the interpreters and also NA had many interpreters employed to arrange public events and other activities. In 1998, as a part of this developing process, the secretariat for DNIS got established to improve the organization of DNIS.

In 2001 Denmark had a change of government and with this the governmental support changed towards nature interpretation (Interview Aagaard, 2015). From the perspective of Jes Aagaard (2015), working for NA under the Ministry of the Environment, it was made clear from the first day that within the Ministry of the Environment the previous focus and resource used on nature interpretation would not continue in the same extent (Interview Aagaard, 2015). One of the first days after the change the advising committee for nature interpretation was shut down as a part of a reduced resources plan. This was seen as a loss within Danish nature interpretation as the committee has consisted of a variety of members across sectors which had up until its termination created many relevant and successful suggestions based on the needs in different sectors (Interview Bondo-Andersen, 2015). However despite this change within the government the development within the organization continued and in 2003 DNIS invited to a conference about nature interpretation to insure a further development and inspire to new actions. At this conference the sitting Minister for the Environment, Hans Chr. Schmidt, showed a highly supporting attitude by stating that: "I look forward to nature interpreters playing a significant role as inspirers in the work with children and nature, in the development of a joint ownership, with partnership and engagement in environmental policy, in working with nature preservation and in realizing a preventive health policy." (Naturstyrelsen & Friluftsrådet, 2003, p. 9, own translation). The minister hereby states that the government still sees nature interpretation within political initiative and further states that there are many potential partners to initiate collaboration with and thereby inspire DNIS to keep developing their organization.

In 2004 DNIS published the report 'Ranger Interpretation Handbook – Heritage Interpretation as a tool to promote sustainable development' which was prepared as a proposal for an international conference about sustainability and heritage interpretation. This report focuses on how nature interpretation can be used in the process of reaching sustainability and suggests eleven principles to promote interpretation and sustainability (Ministry of the Environment et

al., 2004). The proposal of these principles and the organization of the international conference indicate a national and global focus on the prospects of interpretation adding to the yet globally undefined sustainability concept. However, this handbook does not seem to have had further direct influence on the development of the sustainability concept within Danish nature interpretation.

In 2005, NA and DOC, in cooperation with DNIS and DRA, published the report 'Handlingsplan: Naturvejledningen i det 21. Århundrede' (Skov- og Naturstyrelsen & Friluftsrådet, 2005). This report defines the objective and goal for nature interpretation in the 21st century, see table 3, p. 29. This revision of the objective and goal from 1992 was based on the discussions and debates of the conference held in 2003 as well as from a dialogue with DRA. A comparison between the two definitions indicates changes of focus within nature interpretation from 1992 to 2005. Two main subjects have found its way into nature interpretation; health and public participation. This change in focus is, from the understanding in two interview, a result of an increased focus especially on health within the society (Interview Aagaard, 2015; Interview Knudsen, 2015). From the understanding in most conducted interviews and observations nature interpretation is following the development of society and therefore topics important within society is included in the goals of nature interpretation. This view on the relation between nature interpretation and the development of society was further developed around 2005 where NA initiated a focus on making nature interpretation more service minded (Interview Aagaard, 2015). In the understanding of Aagaard (2015) this process was based on the need to make nature interpretation more focused on what their employers want to make nature interpreters more interesting for society. From this developed a focus on children and youth (0-18 years) as a target group (Interview Aagaard, 2015) as well as a focus on health as this issues have been one of the most prominent focus in society in recent years (Interview Knudsen, 2015). At the same time the political and public focus on environmental issues and sustainability has declined up through the 00's (Interview Aagaard, 2015; Interview Bondo-Andersen, 2015; Interview Eriksen, 2015; Interview Knudsen, 2015; Interview Petersen, 2015; Observation 3, 2015; Observation 4, 2015).

In the interviews conducted it has been a common understanding that the governmental interest and support of nature interpretation has been declining since 2005-2006 (Interview Aagaard, 2015; Interview Bondo-Andersen, 2015; Interview Eriksen, 2015; Interview Knudsen, 2015; Observation 2, 2015; Observation 3, 2015; Observation 4, 2015). It has been a general understanding that this decline in interest and support has in part been connected to an economic incentive. Especially since the global economic crisis in 2008 there has been a shift of attitude and nature interpretation have in some cases been seen as the 'whipped cream' that is nice to have but not necessary if there is not finance for it. The 'whipped cream' is the first to be reduced (Interview Knudsen, 2015; Interview Petersen, 2015).

The governmental approach to nature interpretation has been mentioned to also be connected to the acting Minister of the Environment (Interview Aagaard, 2015; Interview Bondo-Andersen, 2015; Interview Eriksen, 2015) as different ministers have different attitudes towards nature interpretation and how important a role it should play as a political tool. In recent years the government, through NA, has been withdrawing their mandate within nature

interpretation. In 2011 NA closed down the secretary of DNIS and thereby terminated DNIS as known up until this point. The decision of terminating DNIS was made in connection with major structural changes within NA³ which also resulted in a change of director. From the understanding of Aagaard, the change of director have been affecting the recent decline in NA's interest in nature interpretation as the new director of NA does not think nature interpretation as important, as opposed to the previous director (Interview Aagaard, 2015). The termination of DNIS and the withdrawal of NA have not been expressed as being surprising and from the perspective of Jan Eriksen it seems natural that NA reduce their responsibilities at this point as NA's own use and connection to nature interpretation have decreased quite a lot in recent years (Interview Eriksen, 2015). However when looking at written statements, put forward by NA, it would not correspond to this understanding.

In 2010, just one year before terminating DNIS, NA published an English leaflet with the purpose of international information material. This leaflet stated that (Naturstyrelsen & Naturvejlederordningen, 2010):

- “The Danish Nature Interpretation Service” with it's 360 Nature Interpreters is a very important tool in this (environmental, ed.) policy. Nature Interpretation gives the public new experiences and an increased understanding of nature – and promotes by this way a sustainable development.”
- The goal of nature interpretation in Denmark is: Through a national network of nature interpreters to give people experience in nature with the aim of:
 - Strengthening their understanding of nature, biodiversity, environment, heritage and the necessity of a sustainable development.
 - Strengthening their outdoor possibilities and activities.
 - Giving them inspiration to participate in a democratic process during involvement in the management of the natural and cultural environment.
 - Give them inspiration for a more healthy and sustainable life style.

These statements are presenting a strong supportive attitude with NA towards nature interpretation which however seems to only have been present in writings and as shown here seems not to be corresponding with actions taken within NA.

After the termination of DNIS a new agreement was made between DOC, NA and DRA which form the cooperation called Nature Interpretation in Denmark. The responsibilities of NA was reduced in 2011 and in 2014 a new agreement was made, in which NA further reduced their responsibilities and DOC now has the main responsibility (Interview Aagaard, 2015; Interview Eriksen, 2015; Interview Petersen, 2015). The new responsibilities are not yet updated on DOC's homepage. It has since 2014 been DOC that have the main responsibility and is financial responsible for nature interpretation as we know it today.

It is interesting to note the development within the organization from the beginning up until this point. As we have seen nature interpretation started as an initiative within the

³ The previous 'Skov og Naturstyrelsen' was merged with the previous 'By- og Landskabsstyrelsen' to form the present 'Naturstyrelse', NA.

governmental frame however in recent years the organization of nature interpretation have changed with the termination of DNIS and the decreased responsibility and influence by NA. To further understand the roles present in today's organization of nature interpretation we shortly look at the present time.

5.1.3. The present day structure of nature interpretation

In 2013 DOC published their strategy for the period 2013-2020. This strategy is developed to focus the resources most efficiently to meet the new challenges DOC is facing. The strategy identifies three central key areas where outdoor life, a rich nature and the concept of sustainability form the general base of all goals. The three key areas are Outdoor life, Education and communication and Landscape and nature. Nature interpretation is entangled across different areas however is also directly mentioned as a part within the key area Education and communication. From the interview with Sune Møller Petersen (Interview, 2015) this strategy forms the base on which nature interpretation will develop in the next coming years. Petersen referred to the objective and goals within this strategy when talking about how nature interpretation should develop further and how and if nature interpretation should and can influence the concept of sustainability. Here is stated the goals DOC have set forward for nature interpretation until 2020 (Friluftsrådet, 2013, own translation):

DOC wants to strengthen nature interpretation on a national level and involve nature interpreters in the solutions to the challenges society is facing.

1. Latest in 2015 DOC have offered all nature interpreters development of competences and equipped them to be included in finding solutions across different sectors in local communities
2. In 2016 DOC have secured that the education of nature interpreters includes the challenges of society
3. In 2016 DOC have extended the capacity and focus of nature interpreters so 20 % of the population is using it
4. In 2017 DOC have strengthen the effort to communicate the cultural environment

When talking about the challenge of sustainability during the interview with Petersen, this challenge was referred to within 'the challenges society is facing' as mentioned in the objectives of the strategy. However when looking at the previous described development within society (and nature interpretation) the focus on environmental issues and sustainability has decreased while a focus on health is more prominent in society and within nature interpretation the focus of the new school reform, see textbox p. 34, seems to be dominant. This has also been my understanding forming based on my interviews; the focus on environmental

The new Danish school reform was implemented from August 2014. It contains a long list of specific goals to be implemented within the next 6 years. This short overview, only present the overall initiatives that seem especially interesting for nature interpretation (Undervisnings Ministeriet, n.d.):

- Inclusion of and increased cooperation with local external organizations
- A varied school day with focus on practical activities that can help the learning process.

issues and sustainability within society is not as prominent as it was earlier (Interview Aagaard, 2015; Interview Bondo-Andersen, 2015; Interview Eriksen, 2015; Interview Knudsen, 2015; Interview Petersen, 2015; Observation 2, 2015; Observation 4, 2015) and one of the main focus within nature interpretation is on health and the new school reform more so than environmental issues (Interview Aagaard, 2015; Interview Eriksen, 2015; Interview Knudsen, 2015; Interview Petersen, 2015; Observation 2, 2015; Observation 3, 2015). This understanding is also supported by statistics of the themes within events and tours, which is documented by DOC.

Since 2012 it has been DOC collecting statistics on nature interpretation activities as the previous used database within NA was closed down. This statistic can be used to create an overview of amounts and topic of tours however it should be noted that not all nature interpreters have reported their tours. All nature interpreters that receive subsidies from DOC are obliged to document their activities and it is an offer to all nature interpreters but it is not all that do it (Interview Petersen, 2015). Therefore the statistic does not give an accurate picture of the reality however in 2014, 206 nature interpreters reported data, wherefrom 116 works full time (Friluftsrådet, 2015). Almost 12.000 activities with a total of approximately half a million participants were reported wherefrom a little more than half was children and most of the activities had the form of a tour or an event within an institution or school class. The theme of the tours was mainly focused on educational purposes within schools and institutions, about three fifth, while one fifth was focused on health. The remaining one fifth was spread out on the themes of public participation and the environment and climate (Friluftsrådet, 2015). This correspond well with the understanding expressed during interviewing that nature interpretation has a focus on schools, based on the new school reform and the opportunities that lies within the new learning goals, see textbox, p. 34 (Undervisnings Ministeriet, n.d.). The focus on health also corresponds well with the general understanding that health is more and more in focus, an understanding expressed during interviews (Interview Aagaard, 2015; Interview Knudsen, 2015).

The fact that NA is no longer as involved has by Jan Eriksen (2015) been identified as an opportunity for DRA to be more actively involved in the development of nature interpretation in Denmark as the influence of the political agenda of NA now is limited. This notion is also supported by the DRA's former chairman Tommy Jensen (Observation 2, 2015) who mention that the new agreement between DOC, NA and DRA gives DRA more responsibilities and room to have influence. However DRA is an association working as a forum for networking, inspiration, sharing of knowledge and so on, within the interest of nature interpretation. It should not develop into more, as for example being a union for nature interpreters (Observation 2, 2015). DRA have the objectives to: (DRA, n.d.b., own translation)

- Work to ensure everybody the possibility for nature experiences and outdoor life
- Promote and encourage a high quality in nature interpretation and nature schools
- Represent a forum for communication between people working with nature interpretation and within nature schools with the purpose of sharing experiences and information
- Follow and promote the development of pedagogical methods within nature interpretation and nature schools

These objectives are promoted through following activities:

- Publishing a members magazine and seek to promote exchange of information by other means
- Strengthen further education of nature interpreters and nature school employees as well as improve working conditions
- Advise on the organization of nature interpretation and nature schools
- Seek to be represented in relevant organizations, committees and working groups
- Collaborate with associations and organizations home and abroad

At the yearly conference and annual general meeting of DRA the present focus of the association was presented. One of the most important focus now and in the coming year is communication and public visibility and DRA have, funded by DOC, hired an external communication consultant to develop DRA's communication and visibility within the public (Observation 2, 2015). The goal is for nature interpretation to be more visual in society and through this grow to be more included and used by different sectors.

What defines nature interpretation is also close connected to the educational system. As mentioned, the logo of an owl, is indicating that the education has been completed which gives a common reference to all nature interpreters. Therefore the education seems to be an element with create influence on what nature interpretation is and how it develops.

5.2. The education of nature interpreters

The education of nature interpreters in Denmark is a unique well-established system that puts the Danish nature interpretation system on the global map. The education has been revised several times and is under continuous development to insure high quality and to keep the

education up to date and in tuned with the development of the society. So states one of the head coordinators for the education, Mette Åskov Knudsen (2015).

5.2.1. The organization of the Danish educational system for nature interpreters

The educational system is built up around several actors which each are responsible for different aspects of the education, see table 4, p. 37. First and foremost it is the Danish Outdoor Council (DOC) that has the main responsibility of the education and is financially responsible. The education is financed through the distributed funding given by 'Danske Spil' to support outdoor life and activities. The funding is also supporting nature interpreters by subsidizing wages to nature interpreters in jobs (Friluftsrådet, n.d.b) where up to 375.000 kr. for a period of three years is given in positions within an governmental organization and up to 750.000 for a period of three years is given to positions within the private sector (Interview Petersen, 2015). A report has to be written stating the development with the given position to insure relevance and development within the position (Interview Eriksen, 2015). DOC is hereby one of the most important institution responsible for the education and an important supporter of nature interpreters in job. Sune Møller Petersen is the main contact working with nature interpretation within DOC.

Another important actor is the Department of Geoscience and Natural Resource Management (IGN) within Copenhagen University. IGN is hired by DOC as a contractor responsible for organizing and carrying out the education which has its main location at the Danish Forestry College (Skovskolen), north of Copenhagen. IGN and DOC are together planning and defining the content of the education, however IGN is responsible for organizing the courses and carrying out the teaching (Interview Knudsen, 2015). Mette Aaskov Knudsen and Poul Hjulmann are the two course leaders, responsible for managing IGN's responsibilities within the education (Naturvejlederordningen, 2009). It is either Mette Aaskov Knudsen or Poul Hjulmann that are the main teacher throughout the two years of courses. In this way, by having one main responsible teacher, a continuous learning process is possible and it is possible to draw on previous subjects in new learning situations, assuring a process of learning through the two years. It has been like this since the last revision of the education in 2005 based on an evaluation focusing on progression throughout the education (Interview Knudsen, 2015). A new evaluation is just finalized and will be feeding into change during spring and any changes agreed on will be implemented during autumn 2015 (Interview Knudsen, 2015). DOC is responsible for the evaluation and even though it is not yet published and it still have to be worked through by the partners involved Sune Møller Petersen, DOC, do not expect any significant changes within the structure of the education (Interview Petersen, 2015)

The different modules are located around the country to give the students different experiences. This allows drawing in different situations in the learning context created by the variety in landscape and organizations throughout the country. Gaining knowledge on how to use and benefit from the local communities surrounding each individual working area is an important aspect in the education and is partly facilitated by the use of local guest teachers, often local nature interpreters of the area. In this way, the DRA is contributing to the education by assuring easy access to former experiences and already obtained knowledge.

DRA constitutes an important network often also used in context of individual assignments during the education to share knowledge and inspire new projects (Interview Knudsen, 2015).

As it is a pre-requirement for acceptance into the program to have a contract of employment, the employers become an important indirect actor within the educational system. The required employment of working as a nature interpreter or attaining task within the frame of nature interpretation insure that no more nature interpreters will be educated than there is jobs for. However this is also creating a dilemma as interested candidates for the education will be excluded which could restrain the development of nature interpretation within the society. This dilemma is recognized by DOC as Sune Møller Petersen (2015), representing nature interpretation within DOC, in an interview mention the two-sided effect of the enrollment protocol. Petersen however refer to a yet unpublished extern evaluation of nature interpretation and the education that seem to draw a satisfied picture of the education system and therefore it is not expected that the system will be reformed any time soon (Interview Petersen, 2015). The education is established as a further education program which makes the employer important not only for enrollment but also as part of the finance system. The employer it responsible for paying full or a part of the students salary as it is possible to have the employment supported by subsidies distributed by DOC, as mentioned earlier. 24 students is every year enrolled into the education and this year class number 28 started in Marts.

Table 4: An overview of actors involved in the educational system and their responsibility areas (own production).

Actors	Responsibility
The Danish Outdoor Council	Have the main responsibility and is financially responsible for the education and subsidies for wages to nature interpreters
Department of Geoscience and Natural Resource Management	Responsible for carrying out the education. Plan and teach the courses and assess the assignments.
The Danish Ranger Association	Network of the educated interpreters. Educated interpreters are in some cases teaching as guest teachers during the education.
The employers	Pay full or part of salary for interpreter during education and agree to the working hours spend on projects connected with the education.

The fact that the educational system of is a further education system means that to qualify for the education some pre-qualities have to be met, as for example a degree within biology, environmental management and the like or a pedagogic educational background. However the most important factor is employment. The fact that the students have different background knowledge and are hired in different positions during the education poses a challenge within the education system. Different starting points make it harder to go into depth with a specific subject which makes the courses more like an intro to a subject than in depth teaching. It is

through the assignments that the students get to the chance to go deeper into a subject but also here is differences effecting the learning situation. Some students have a high academic knowledge about the environment and the nature and know little about pedagogics while some students have a lot of experiences with communication and pedagogic but have less academic knowledge about the nature. As Mette Åskov Knudsen (2015) formulate, some students have been writing a Ph.D. in biology while others students have a pedagogic education as background. In addition, different employments and tasks on job, give the student a different approach to the courses. Some mainly have work with children, as for example working at a nature schools, while others have no or minimum contact with children as such, working to develop more involvement in nature management within a municipality as for examples. This gives the students, not only different starting points, but also different focus, strategies and frames to work under during the education which can create different learning outcomes within the students.

As explained the enrollment into the education program is depended on former education and relevant pre-qualifications as well as an employment contract. The goal of the education is to train the participants to be able to motivate, develop, plan, conduct and evaluate nature interpretation based on knowledge and a pedagogical approach (DRA, n.d.c.). The skills that the participants will acquire are therefore both situated around academic knowledge and learning theories, however is focused more on the art of communication and guiding than academic knowledge about nature (Interview Knudsen, 2015; Interview Petersen, 2015). The education is built up based on the goal of nature interpretation in Denmark and the performance of the education is continuously evaluated to insure best possible practice within the program. The structure, objective and goal of the education is clearly stated in the Curriculum for the education of nature interpreters⁴ (Naturvejlederordningen, 2009).

5.2.2. The Structure, objective and goal of the nature interpretation education

The education is stretched over a period of two years which contains five residential courses, two study trips and three assignments, see table 5, p. 39. The name of the courses, study trips and assignments indicate the content for each activity. The course length range from three to teen days and, together with the study trips, demand an hour count of approximately 356 hours. Further is 174 working hours reserved for the assignments, giving a total hour count of approximately 530 hours, equal to approximately 72 working days (Naturvejlederordningen, 2009). These hours are spread equally over the two years which allows the students to continue to obtain work tasks next to the education. As employment is a requirement for acceptance into the education program often the assignments are carried out in connection to the tasks within the job, creating interaction between the job (real world) and the education.

⁴ Studieordningen for Naturvejlederuddannelsen

Table 5: Overview of the courses, study trips and assignments. More detailed information on the content of each activity can be found in the 'Curriculum for the education of nature interpreters' (Naturvejlederordningen, 2009).

Activity	Length
Courses	
1. The direct nature interpretation	10 days
2. Nature interpretation for children	5 days
3. Courses for pedagogues, teachers and adults in general	3 days
4. Nature interpretation for adults	4 days
5. Public involvement	5 days
Study trips	
1. Outdoor life	3 days
2. Visit a college	3 days
Assignments	
1. The direct nature interpretation	Approx. 4 ½ month
2. Knowledge search	Approx. 3 ½ month
3. Public involvement and indirect communication	Approx. 3 ½ month

There are four main themes setting the scene for the residential courses during the education, see figure 4. The themes outline the subjects that the student will cover as the assignments are also carried out within these main themes in connection to a specific course. The themes have been changing slightly during time based on the previous mentioned evaluation method. In earlier days of the education the courses was set and carried out more as individual courses. The teachers where different from each course and the courses focused only on the isolated theme of that specific course. To help create a red line throughout the education the present themes are being outlined continuously to insure highest possible learning outcome. This approach, together with the previous mentioned fact that one continuous course leader teach the class throughout the education, enables referencing to previous courses and themes to be built into new learning situations (Interview Knudsen, 2015). Furthermore, as an integrated part of the courses, the students focus on different target groups to insure that the students will obtain knowledge and experience working with different target groups.

The four overall themes are:

- Health and quality of life
- Nature as an opportunity for expressing oneself and to focus on specific topics
- Nature- and cultural values
- Public involvement in a democratic nature management process

Figure 4: These four themes presented here is the overall themes which influnee the content of the residential courses (own prodction).

The objective of the education is closely connected with the overall objective of nature interpretation in general defined in the 2005 document, 'Nature interpretation in the 21st century' (Skov- og Naturstyrelsen & Friluftsrådet, 2005). This document was published based on an evaluation conducted on nature interpretation in Denmark and present in writing the latest official definition of objective and aim. In the 'Curriculum for the education of nature

interpreters' (Naturvejlederordningen, 2009) the objective of nature interpretation and the aim of nature interpretation is stated:

Objective of the Nature interpretation organization (2009, own translation):

1. Nature interpretation gives the participants direct experiences in nature
2. Nature interpretation communicates a holistic worldview where nature and the cultural environment are communicated as products of the foundation of nature, the processes of nature as well as humans effect on nature.
3. Nature interpretation gives opportunities to gain experiences and knowledge on the foundation of nature as well as societies management of nature, the environment and the cultural environment.

The aim of nature interpretation

1. To strengthen the public's understanding for nature including biodiversity as well as the environment and cultural environment
2. To strengthen the public's recreational opportunities and outdoor activities
3. To strengthen the public's direct inclusion and involvement in nature- and cultural environment management
4. To inspirer to a healthier and more sustainable lifestyle

The aim of the education is connected to this overall objective and aim of nature interpretation in Denmark as the education aim to develop qualifications so the student is able to develop, plan, conduct and evaluate nature interpretation based on, at the time, present objective and aim of nature interpretation. The student should through the education develop qualifications within the areas of didactic, communication, reflection and personal development. Within the qualification of personal development it is, amongst others, identified as important to develop nature interpretation in correlation with the development within society (Naturvejlederordningen, 2009) which becomes interesting when looking at what characterize nature interpretation in present time and the connection to the concept of sustainability.

5.3. Nature interpretation, sustainability and democracy

Based on the history and development of nature interpretation in Denmark, see table 6 for an overview, it becomes clear that the institution of nature interpretation has a relation to sustainability and is closely intertwined in different ways with the democratic framework of the Danish society. The main research question first asked if the institution of nature interpretation is including the dimension of sustainability. The dimension of sustainability is clearly included on paper and has been a part of the defined goal for nature interpretations role in Denmark, almost from the very beginning and still is to some extent. However it has been a clear understanding through all interviews and observations that the dimension of sustainability in general is not included as a topic nor verbalized during the practice of nature interpretation activities. To this have been found different understandings for why the

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dimension of sustainability is not included, problematized or verbalized within nature interpretation activities despite the written goal of doing so:

- The question of sustainability is a political discussion and should therefore not be included in nature interpretation
- The question of sustainability is hard to make concrete and therefore hard to include
- The question of sustainability is connected to a risk of creating a negative atmosphere and thereby a negative experience of the nature interpretation activity
- The question of sustainability is connected with a risk of a critical review of the nature interpreters own political opinions and actions towards sustainability
- The question of sustainability is present in nature interpretation as an underlying value
- The question of sustainability is not seen as a common goal for nature interpretation in general

The main research question secondly asked which role nature interpretation has in the democratic frame of society in relation to the question of sustainability. Nature interpretation is per definition concerning nature which per definition is a common. Through this evident relation to a common, nature interpretation cannot be seen separate from the democratic frame as the democratic frame is the room wherein questions concerning a common can be dealt with. The connection to democracy is evident, although the role within the democratic frame in connection to sustainability appears unsure. From the very beginning nature interpretation was initiated within a political agenda and several times through history has nature interpretation been referred to as a political tool. Therefore nature interpretation is not only connected to the democratic frame through the common of nature but has also been included in the political sphere of decision making. The connection to the political sphere has been identified to have influenced nature interpretations role in the democratic frame of society. This is connected to the above outlined understanding to why sustainability is not problematized or verbalized within nature interpretation events and will be elaborated through the analyses of this report. However, in recent years the direct political influence in the organization of nature interpretation has been reduced which has been identified as a possibility to open up for a potential new role of nature interpretation within the democratic frame. This will also be discussed further in the analyses of this report.

Table 6: Timeline describing important activities within the organizational system of nature interpretation. A few general activities and events within the society that is relevant for this study and have shown to have significantly influenced the development of nature interpretation are also noted (own production).

Year	Activities within nature interpretation	Parallel activities within society which influenced nature interpretation
1982	Advising committee established, initiated by the equivalent of today's NA.	
1985	Report from the committee group published with recommendations of starting a three year trial period and start a education system of the interpreters	
1986	Trial period initiated, pilot project of DNIS established. Actors involved was the equivalent to today's NA, DOC and the Ministry of the Environment	
1987	Education system started and the first weekend course organized	Brundtland report published
1989	DNIS is made permanent	
1992	DRA established and the goal for nature interpretation revised inspired by the Rio de Janeiro conference. Financial support to nature interpreters implemented based on the funding from 'Danske Spil'	Rio de Janeiro conference – focus on the need of change towards sustainability
1998	The secretariat for DNIS gets established	
2001	The advising committee is closed down	Change of government
2004	Handbook for nature interpreters to promote sustainability published in an international network	
2005	DOC and NA publish the report 'Handlingsplan: Naturvejledningen i det 21. Århundrede'	
2008		Financial crisis
2011	The secretariat for DNIS is terminated and a new agreement between NA and DOC is established with NA less involved and DRA involved more actively	
2013	DOC publishes their strategy for 2013-2020. Many of the goals are relevant and some directly connected to nature interpretation	
2014	The agreement between NA and DOC was revised with NA less involved and DRA more involved.	
2015	New evaluation of nature interpretation is finished, however yet unpublished	

6 Analysis

This chapter aims to elaborate on the findings presented in chapter 5 'Nature interpretation in Denmark' based on the theoretical framework presented in chapter 4 'Modernity and Deliberative Democracy' with respect to the main research question: is the institution of nature interpretation including the dimension of sustainability and what is nature interpretations role within the contemporary democratic frame of society in relation to the question of sustainability? The analyses will start by focusing on the first prospect; Nature interpretation and the dimension of sustainability and will further move on to the second prospect and discuss the role of nature interpretation within the democratic frame of society.

6.1. Nature interpretation and the dimension of sustainability

Sustainability has both directly and indirectly been a part of nature interpretation. The very beginning of nature interpretation was initiated by a political understanding that something needed to be done to improve the environmental situation and since 1992 the term sustainability has been directly mentioned in the goals of nature interpretation. Therefore when looking at the written materials and documentations presented in the review it seems evident that it has been a goal to add positively to the concept of sustainability. In 1992 one of the goals was to communicate "about national and global environmental conditions and contributions to a sustainable lifestyle", see table 3, p. 29. In 2005 a part of the objective for nature interpretation was to create an opportunity "to gain experiences and knowledge on the foundation of nature as well as the management of nature, the environment and the cultural environment" with a goal to "inspire to a healthier and more sustainable lifestyle", see table 3, p. 29. These objectives and goals were put forwards within the frame of previous DNIS. The present objective and goals for nature interpretation is found within DOC's strategy for 2013-2020. DOC will work to "involve nature interpreters in the solutions to the challenges society is facing". Thereby, the question of sustainability is not mentioned directly in DOC's written strategy. However in the interview with Sune Møller Petersen it was mentioned that environmental issues and sustainability can be seen as included in 'the challenges society is facing'. These written statements, that sustainability is and has been considered in relation to nature interpretation, are also supported by statements and publications up through time.

At the conference in 2003 the Minister of the Environment, Hans Chr. Schmidt, stated in a speech that he was looking forward to see nature interpretation play a significant role in engaging the public in environmental policy. One year later, in 2004, DNIS published the report 'Ranger Interpretation Handbook – Heritage Interpretation as a tool to promote sustainable development' in relation to an international conference which focused on how nature interpretation can be used to promote sustainability. In 2010 DNIS and NA published an English leaflet for international information purposes which stated that nature interpretation is a very important tool within environmental policy that through experiences and increased

understanding of nature within the public, promotes sustainability. Further it is stated that nature interpretation activities inspires the participants to participate in a democratic process as well as inspires them to adopt a more sustainable lifestyle. However, as described earlier, DNIS was terminated just one year later in 2011 as NA no longer wished to be one of the main actors within nature interpretation in Denmark. This views as a contradicting standpoint of NA as NA chose to diminish own responsibilities, support and involvement, just one year after stating that nature interpretation is seen as an important political tool. This contradicting standpoint is also found during interviewing and represents an example of an identified general understanding that the inclusion of sustainability during nature interpretation activities in reality is not corresponding with written statements. Based on the understanding of a wide range of central people within the institution of nature interpretation, like the historical and present overview of Arne Bondo-Andersen, to one of the main actors responsible for the education Mette Åskov Knudsen, to the NA employee Jes Aagaard, to the previous director of DOC Jan Eriksen and to the typical nature interpreter in action, a general understanding that sustainability rarely is included as an aspect within present time activities have formed. The concept of sustainability is not verbalized nor is it in other ways a visible factor within the general activity. This understanding, as presented in section 5.3. has been connected to different factors describing why the question of sustainability is not included in practice, despite the written interest of doing so.

- *The question of whether sustainability is a political discussion and should therefore not be included in nature interpretation:*

In two informal conversations during my observations (3 & 4) it was expressed that some nature interpreters would not include the question of sustainability as it is a political issue that should be solved on a political level. Also my interview with Jan Eriksen brought up an interesting example regarding this point of view. At the event of DNIS's 25th anniversary Eriksen held a speech for all participating nature interpreters. A few months before, the establishment of a new national park was shut down. Eriksen included this in his speech as he personally saw this as a great loss for nature and proceeded to ask the assembled group of nature interpreters their opinion on this subject. This created an ongoing discussion on whether or not nature interpreters should have an opinion on such decisions as it was a political decision. Some were of the opinion that nature interpretation should not be involved with political issues while others were agreeing with Eriksen, that opinions on such issues should be expressed and the issue discussed. Eriksen compares this with the question of sustainability as it, from his understanding, is an issue that some nature interpreters actively choose not to include a debate on sustainability based on such argumentation.

Up through time nature interpretation has several times been mentioned as being a political tool and is directly connected to politics by its origin and by its intentions. However, the fact that NA has decreased their influence in recent time opens up for a discussion of whether nature interpretation in present and coming time is connected to politics. However, from the strategy of DOC it is clear that nature interpretation aims to take part as a tool to work with problematics and challenges within society including the challenge of sustainability. In addition to this it can also be argued that nature interpretation is directly connected to the democratic framework of society through the earlier presented argumentation that nature is a common to

us all. As democracy is the only legitimate frame to deal with common visions, nature interpretation becomes an integrated part of democracy on which political decisions are made. Nature interpretation can therefore not separate itself from the democratic frame as nature interpretation per definition is concerning nature as a common.

The issue of whether or not nature interpretation should include the question of sustainability despite its political dimension was in the understandings of interview 5 also connected to the position of the individual nature interpreter which put forward a sensitive topic. Take for example the nature interpreter employed by a nature school which is typically funded by municipalities. Imagine the nature interpreter, through a debate about the values surrounding sustainability, is creating a debate that might lead to a critical view on the nature management decisions made by the politics of the municipality. This could further lead to a negative attitude towards the nature interpreter within the municipality. This implies a challenge connected to the utopian idea of democracy as the idealistic idea of democracy would allow for critical opinions to form. However this perspective challenges the thought of creating a deliberative space and room for commoning within the institution of nature interpretation.

- *The question of whether sustainability is hard to make concrete and therefore hard to include:*

The understanding of this being a barrier for including sustainability in nature interpretation activities was mentioned in two interviews (1 & 5) and two informal conversations during observations (3 & 4).

From the very beginning nature interpretation was developed to teach people how to 'behave' in nature and was initiated politically from a strategic perspective. The objective as defined in 1985 states that "Nature interpretation is a description and an explanation of a landscapes characteristics that leads to experience, knowledge, respect and concern for the nature and the environment" and one of the goals was to communicate the "written and unwritten rules for use of the landscape", see table 3, p. 29. Nature interpretation was therefore started within the political framework developed to deal with environmental issues. As described earlier this political framework was (and is) based on scientific knowledge which have created an approach towards sustainability that focus directly on 'how' the question of sustainability can be tackled. As the institution of nature interpretation is created within the political framework the approach of nature interpretation towards the question of sustainability, naturally have followed the political approach which created the approach of 'describing' and 'explaining'. Nature interpretation has changed and developed since the beginning and the experience itself in nature and participant involvement has gotten more attention as a goal. However nature interpretation activities are still based on knowledge and information. Especially with the focus of the new school reform, teaching and knowledge is a prominent goal. When focusing on giving information and creating knowledge about sustainability to find answers, concrete knowledge about sustainability becomes essential. However, as discussed earlier the very definition of sustainability makes it impossible to make the concept concrete. The subjectivity of the definition assures that not a single unambiguous answer can be found and emphasize the importance of asking 'why' instead of 'how'. In this manner, it becomes the approach of 'how' that creates the essential problem of this identified barrier.

From the perspective of Arne Bondo-Andersen, interview 1, the approach towards the question of sustainability has not moved beyond the technique of trying to show the participants how to sort their waste and save more water, which further demonstrates the approach of 'how'. Also observation 3 showed a clear tendency of focusing on knowledge. The focus during observation 3 was mainly on knowledge about the insects and a practical orientation of how to catch the insects. This also seems to be the focus within NA, where direct communication is decreasing to the point of being substituted by information leaflets with information and ideas on how to have a good experience in nature, see appendix 1, interview 3. The overall focus on knowledge creates a forum of a learning situation in which knowledge about the topic of the event naturally becomes essential. When this is the most common approach within nature interpretation events, it can make the challenge of sustainability overwhelming, as scientific knowledge about the concept of sustainability in itself is overwhelming.

The focus on scientific knowledge is not surprising as this is the approach taken by society. From our culture it is defined that scientific knowledge is needed to be able to teach others about a certain topic. It can be argued that especially within natural science, knowledge has become essential because everything has been defined and it is an understanding that there is an answer to every question. Nature, has through science, become something we want to know everything about and by investigating it, objective answers can be found. Therefore it is expected that the nature interpreter would feel obliged to obtain scientific knowledge about the concept of sustainability before feeling comfortable with including it. However from the understanding that the 'why' question lies prior to the question of 'how', the topic of sustainability becomes a question of ethic and values, which does not require any scientific knowledge as any value is equally valid when compared to any other. From this perspective the need of scientific knowledge and the ability to make sustainability concrete is eliminated.

This understanding implies that nature interpretation activities do not aim at creating a deliberative space and do not focus on creating a process of commoning in regards to the question of sustainability. From the perspective of a deliberative process with the focus on 'why' it is not concrete facts that are important. A deliberative process would focus on creating an unconstrained dialogue and a feeling of inclusiveness where everybody would be able to be heard and feel a part of the process. The focus is therefore not on concrete knowledge but on a process where it is *not* a goal to reach a consensus or conclusion.

- *The question of whether sustainability is connected to a risk of creating a negative atmosphere and thereby a negative experience of the nature interpretation activity:*

This understanding was expressed in one interview (5) and two informal conversations within observations (2 & 4). The understanding is based on an expected negativity associated with the concept of sustainability. It is mentioned that talking about sustainability can quickly become a lesson about what we, as citizens in Denmark, are doing wrong and what we should do different. People in general do not like to be criticized or evaluated, especially not on a trip that should be enjoyable and fun and maybe even is a trip that they have paid for. Furthermore, there is also the consideration that the subject of sustainability will turn into a

discussion, which can lead to a negative atmosphere amongst the participants. Finally, it is mentioned that including sustainability will turn the focus to a negative and sad view on nature which can leave the participants feeling sad, guilty and overwhelmed.

It can be argued that these negative associations connected to the term sustainability is what Clausen *et al.* (2010) refers to as being the critical dimension of sustainability. By stating that sustainability is needed, it is implicitly stated that the current situation is not good enough. Therefore the negative associations expressed in interviews can be argued to be an implicit part of dealing with the question of sustainability. Following, it becomes interesting to ask: “is this risk of creating a negative atmosphere a barrier to the goal of nature interpretation?” If the goal of nature interpretation primarily is to create a good experience in nature, then the answer might be yes. However, if the goal of nature interpretation is to promote inclusion into solving the problematics of society, not much implies that the risk of creating a negative atmosphere creates a barrier. This understanding thereby points towards that the goal of nature interpretations activities being a good experience is overshadowing the goal to be included in the solutions to the problematic of sustainability. It implies that nature interpreters foremost see their task to create a good experience and have happy visitors after being in and connected to nature.

- *The question of whether sustainability is connected with a risk of a critical review of the nature interpreters own political opinions and actions towards sustainability*

This understanding was expressed in one interview (5) and two informal conversations within observations (2 & 4). This worry can be connected with the qualities discussed in relation to previous result. The fact that nature interpreters do not want to be confronted with own opinions relates to the critical dimension of sustainability. As current society shows not to be sustainable, most people contribute to the unsustainability merely by engaging in society. Therefore, evaluating ones actions becomes rather uncomfortable and maybe especially for a nature interpreter who is, by name, expected to have a special connection and relation to nature and perhaps expected to act more sustainable than most.

This identified worry implies that the approach towards the question of sustainability is not based on a deliberative process and does not have a focus of creating a process of commoning. From the aspect of inclusiveness within a deliberative process everybody is seen as equals and different opinions and experiences is welcomed. An atmosphere where nobody feels judged or evaluated should be created and an unconstrained dialogue gives the possibility to speak freely. If an atmosphere of unconstrained dialogue and inclusiveness is created, all opinions and standing points should be welcome and there would be no reason for feeling judged. If such an atmosphere is obtainable, this critical aspect could be used to nourish a development of commoning. If the nature interpreter is able to admit to imperfection, this could create an opportunity to nourish the feeling of commoning as when even the nature interpreter, the guide and ‘leader’, is not perfect and does not know the answer, it emphasizes the complexity of the problem, thus including everybody on the same level. However this last mentioned notion is merely based on speculations.

- *The question of whether sustainability is present in nature interpretation as an underlying value:*

This understanding was expressed in three interviews (2, 3 & 5) and in three informal conversations during observations (2, 3 & 4). This notion is not a barrier as such but it has been identified to have influence on why the issue of sustainability is not verbalized, nor problematized. As nature interpretation is communication about nature, in nature, most people that choose to become a nature interpreter (which is not that easy as seen from the review of educational system) have a special positive relation to nature. As most people that really enjoy being in nature also wish to protect it, it makes sense that most nature interpreters have environmental issues in mind and value the thought of sustainability. For this reason the personal values that are often expected to be present within a nature interpreter becomes the expected value of nature interpretation in general. It is a general attitude that the enthusiasm of the nature interpreter and the good experience in nature can create initiative to protect nature based on the positive relation to nature. The positive experience in nature is expected to lead to a value of protection as the participants, just like the nature interpreters himself, will enjoy nature and thereby create an underlying desire to maintain and protect nature. This expected connection has been identified as an important dimension of nature interpretation and also adds to the reason why the good experience is so important. To what extent the participant of a nature interpretation event becomes more aware of the question of sustainability and creates a value of protection towards nature, is not to be said based on this research. However it is evident that nature interpretation based on such an approach does not create a room for commoning or a deliberative space to add to the creation of deliberative qualities within the current democratic frame.

If sustainability is actually an underlying value of nature interpretation was questioned and discussed in the informal conversation of observation 4. The nature interpreter present in observation 4, see the extensive use of equipment as an issue and something that goes against the idea of sustainability. It is unsatisfying that most events today are built up around an extensive use of equipment which is giving a bad example and convey an attitude that equipment is necessary to be able to enjoy nature. It is further argued that the equipment used is rarely focused on reuse or environmental friendly material and that a general spirit of sustainability is not present. Therefore, from this perspective an underlying value of sustainability within nature interpretation in general is not present when looking at the actions taken within the establishment of nature interpretation events. The notion of extensive material use was also evident in observations 1 and 3, where the activities were planned around the use of material and a need of equipment to carry out the activities. For example in observation 3, a course for pedagogies, different kinds of insect catchers, trays, loops and the like, were the focus and were displayed as necessary equipment for making an insect event with the children possible. Also in observation 1 (Observation 1, 2015) the event was formed by different stations, each station presenting some kind of equipment and use of material. Both these events were thereby created based on a significant use of material. However, from the interview with Mette Åskov Knudsen (Interview 2) a different understanding of the underlying value of sustainability was put forward. Within the educational system, a value supporting the thought of sustainability is conveyed into the planning of the courses. The

courses are chosen to be hosted at places where organic food, waste sorting and low energy use are in focus. By setting the scene for a sustainable line of thoughts the student's experience the underlying value of taking measures to decrease their own impact on environmental issues. However these incentives are not verbalized and thereby not discussed, which correlates well with the previous findings of this thesis and demonstrates that the educational system itself is not emphasizing a need to discuss underlying values but express an understanding that the underlying values and actions have some importance.

This would generally indicate that despite the possible underlying value of the importance of sustainability within each nature interpreter, the institution of nature interpretation does not display actions conveying such a value. The underlying value might be there within the institution however it is not verbalized, problematized, discussed or clearly demonstrated through actions. The institution itself does not present an opportunity to create a room where such values can be discussed. Additionally, there is also a dimension of cultivated delusion in reference to what characterize the current environmental discourse as described by Læssøe (2007). That the value of sustainability is described as being present, just not visible, it is easy to develop a self-understanding that nature interpretation adds positively to the question of sustainability; "we have it in our mind all the time". However there is no focus on discussing the difficulties choices connected to the question of sustainability and as a consequence the issue is not problematized. It is hereby not argued that nature interpretation is not adding positively to the question of sustainability. This question lies beyond the reach of this research. It is only stated that the approach towards the question of sustainability within nature interpretation is based on the same discourse as the approach of society, which is a discourse that has not shown to be efficient up until this point.

- *The question of whether sustainability is not seen as a common goal for nature interpretation in general*

This notion adds to the reasons for why sustainability is not an included issue and was mentioned first by Mette Åskov Knudsen, interview 2, in connection to the challenge of nature interpreter's different backgrounds. As admission to the education is not dependent on specific background knowledge about nature, the interest and background knowledge of nature interpreters is very diverse. As Knudsen argues, the education focus on developing communication skills more than knowledge about nature and there is no room for including the topic of sustainability in order to teach the students more about this. However from the perspective of this research scientific knowledge is not a necessity to be able to include sustainability which makes the background knowledge less important and to some point irrelevant. Instead the communication skills become essential for creating a deliberative process. When looking at the topics of the courses and the themes included during the education, see section 5.2., a discussion about the values of sustainability could lie within both 'life quality', 'Nature- and cultural values' and 'public involvement in a democratic nature management process' to name a few examples. It does not seem to be the missing intention or value that is resulting in the missing inclusion of sustainability; it is the approach towards the topic that creates a limiting challenge.

Why sustainability is not verbalized within the educational frame as well as within nature interpretation in general is, from an understanding put forward by Mette Åskov Knudsen, also connected to the general development and interest within society. It is a general understanding, expressed in all interviews (1,2,3,4 & 5) and in observation 2 and 4 that the interest and focus on environmental issues and the challenge of sustainability in society is much less now than previous. As stated earlier nature interpretation is sought to be involved in solving the problems of society and is therefore very attentive and responsive to the development within society. Therefore, as an understanding also expressed in all interviews (1, 2, 3, 4 & 5), the development of nature interpretation follows the development of society. This understanding correlates with the findings that nature interpretation have been following the development of society as the very beginning of nature interpretation was initiated based on specific needs within society. This adds to the findings of why the question of sustainability is not included as such in nature interpretation activities and demonstrates how the development within society shapes the development of society. The present focus of nature interpretation is, as seen earlier, on health issues and the new school reform, which in present time is some of the prominent challenges that have high interest and focus in today's society and political frame. Knudsen further argues that the relation nature interpretation has to society is also affected by the role of the employments and thereby by the employers. This notion of employment is also mentioned in interview 3 and 5 as well as during observation 3. As expressed in observation 3 most nature interpreters consider the vision of their employment more important than the vision of nature interpretation in general. As it can be hard to find funding for employment, the vision and goals put forward by the employer is being valued higher than the common goal of nature interpretation in general. The employer distributes the salary and therefore has great influence on defining the role of the nature interpreter. Jes Aagaard, interview 3, presented an example of this notion. When NA got a new director in 2011 the level of support towards nature interpretation within NA have decreased, as also seen in reality, partly because the new director does not see nature interpretation as an important player. Since the change, the frame that Aagaard is working within has also changed, which has affected his way of working to being even less about direct communication. This aspect constitutes an additional obstacle towards having any common goal for nature interpretation as an institution.

In addition to these identified reasons to why the question of sustainability is not included, the fact that there does not seem to be much effort to promote a feeling of a common goal within the institution of nature interpretation. The 2013-2020 strategy of DOC does not offer a common goal as it defines the goals to be very broad. The notion goal to 'involve nature interpreters in the solutions to the challenges society is facing' and 'be included in finding solutions across different sectors in local communities' is assuring that nature interpretation can and should be seen as an institution that can be involved in a broad spectrum of challenges within society. It thereby offers no common goal, such as sustainability and does not imply that such a common goal should be implemented. The lack of a specific common goal or vision for nature interpreters is further indicated by DRA's lack of such. DRA, as the association representing nature interpreters in Denmark in contact with nature interpreters in a wide range of employments, does not offer any topic specific goals. The general focus in the

association is to promote the use and visibility of nature interpretation within many different actors and to make nature interpretation desirable across sectors.

From this perspective it makes sense that sustainability is not a common goal and the analysis so far has shown that the inclusion of the question of sustainability is very limited for various reasons. However in every interview and observation it is expressed that sustainability is an important topic in connection to nature interpretation. The analysis so far has indicated that the development within nature interpretation is closely connected to the development within society and that the institution of nature interpretation is working within the framework of current state of democracy. Therefore it becomes interesting to look further into the second part of the main research question of this report; which role does nature interpretation have in the democratic frame of society in relation to the question of sustainability?

6.2. The role of nature interpretation within the democratic frame of society

As described in chapter 5 'Nature interpretation' of this report, the organization of nature interpretation has recently changed with the termination of DNIS and the decreasing responsibilities of NA. From the perspective of Jan Eriksen, interview 5, this creates an opportunity for changing the role of nature interpretation within the democratic frame as the direct connection to politics is now limited. He argues that this creates a possibility for nature interpretation as an institution to create their own voice disconnected from political incentives. Eriksen looks towards DRA which he hopes will be more involved in initiating a process for defining what nature interpretation should stand and be known for. The need to define nature interpretations role within society is not lost on DRA as this topic briefly touched upon through a presentation on DRA's yearly conference. Unfortunately, while I was unable to attend this part of the conference, the problem with reference to this specific presentation, was brought up during observation 3, where the nature interpreters on own initiative mentioned this specific presentation. The presentation was given by a representative from LEGO, a big Danish concern factoring the worldwide Lego-toys. The presentation focused on a crisis LEGO went through a few years back, when they experienced a huge decrease in sales. LEGO's first approach was to try to reach out to a broader audience. They thought that LEGO was getting too old fashioned and that they had to think innovatively and follow the development of society by creating all sorts of new products different from their normal products. This approach, however, backfired as their customers got confused in what LEGO was representing and standing for. In the informal conversation of observation 3 this was brought up as an example that describes the present situation of nature interpretation. As a measure to try to make itself more desirable in a time where funding is limited, nature interpreters try to grasp a wide range of challenges. From the perspective of the nature interpreter in observation 3, this might create jobs while in the long run it might also result in a concept of nature interpretation that is undefinable and have lost its sight on its intended goal. The nature interpreter further explains that the LEGO presentation created interesting discussions amongst nature interpreters present at the conference. It was discussed whether or not nature interpretation has a clear intended goal or if nature interpretation is in the process of being undefinable due to the search of possible jobs. This is connected to the fact that nature interpreters are struggling to keep being an interesting asset to employers. This

concern is prominent within the community of nature interpreters and is mentioned as an important issue in interview 2, 3, 4 and 5. The educational system is also aware of this challenge as one of the newest initiatives is the focus on how to work across different sectors and spread itself on a wider area of topics to make the nature interpreters more desirable for employers within the municipalities for example. Nature interpretation has to be more than the 'whipped cream'.

The confusing of what nature interpretation is and should be, is also presented by an example put forward during observation 4. The nature interpreter present in observation 4 is in an ongoing discussion with another nature interpreter connected to a different nature interpretation institution within the same municipality. The essence of this discussion is a disagreement of what nature interpretation is, can and should be. One nature interpreter is guiding events that, from the perspective of the other nature interpreter, cannot and should not be defined as nature interpretation. This present ongoing discussion between two educated nature interpreters demonstrates the problem of having an undefined concept of nature interpretation. This further exemplifies the need to define what nature interpretation is and what it should be. Nature interpretation as an institution is in present time expanding its focus and is looking for new partners with the following risk of focusing too broad for its own good. The organization has recently changed which further opens up for new constitutions, especially with respect to DRA possible increasing impact. Despite the fact that all nature interpreters has completed the same education it seems that the employments of each nature interpreters is influencing the nature interpreters work, more than the common vision for nature interpretation which reduces the feeling of a common goal beyond the basic of a good experience with nature. This being said, nature interpretation creates many good initiatives and works actively to develop its role within society.

6.3. Concluding remarks

It is indicated that nature interpretation forms an institution with little connection and influence on the challenge of sustainability within society. It is argued that the institution is influenced by the development of society and the approach towards sustainability is created within the existing democratic framework. When looking at the qualities identified within nature interpretation, it becomes evident that a deliberative approach is not used. There is no indication of an approach toward trying to create a deliberative space in which a process of commoning can occur. The approach towards the question of sustainability is from the view of 'how' which creates a number of barriers towards including the question of sustainability in the first place. The employment has been identified to have an impact on the role of nature interpretation within society as the visions of the employer is put before common visions of nature interpretation that goes beyond the goal of good experience in nature. It will be interesting to follow the institution of nature interpretation in the coming years to see if the aforementioned organizational changes will lead to a different institution; one that could potentially tackle the question of sustainability from the perspective of a deliberative process.

7 Discussion

This chapter will elaborate on aspects interesting to discuss in relation to the findings of this research. Aspects of the limitations connected to the method used will also be touched upon.

7.1. Nature interpretation - an institution caught in the contemporary democratic frame

The starting point of this research is a fundamental understanding that something is wrong in our society. The idea of sustainability, as opposed to the current situation, is stating this by its very existence. At the same time it is criticized that our current approach towards solving what is wrong, is not good enough. The approach towards solving the common challenge of sustainability is the same approach which created the challenge and neglected the idea of a common. The contemporary democracy has been criticized to have created a too big of a gap between the citizens and the regulatory sphere. This now creates a barrier for democracy to be able to deal with issues that are common to us all. There is no room in between the citizens and the decision-makers to allow for a debate about the ethics and values on which society is built. The idealistic idea of a deliberative space is to create a third sphere to avoid the barrier created by existing structures of society and by this, create an inclusive, unconstrained dialogue concerning the commons in society. In relation to sustainability such a debate needs to be focused on the ethics and values connected to the aspect of sustainability. One of the objectives of this report has been to investigate if nature interpretation as an institution is creating such a deliberative space. An extensive review of nature interpretation has shown that this is not the case.

Nature interpretation is an institution in contact with the public and is concerned with the common of nature. These basic characteristics present a promising opportunity to create a deliberative space that can initiate a process of commoning within the public sphere. However the structures on which society is built seem to have influenced the workings of nature interpretation. Nature interpretation has followed the environmental discourse of society and has thus come to deal with practical solutions in everyday life and has eliminated the attention of the ethics and values connected to the barriers, dilemmas and difficult choices of sustainability. The role of nature interpretation has from the very beginning been defined within the structures of society. It has developed within existing frameworks and has, as a consequence come to adopt the approach of society. Most nature interpreters seem more affected by the goals of their specific employment than the goals put forward for nature interpretation as an institution. This being said, the strategy put forward by DOC does describe the direction in which nature interpretation should develop. However, there are no implications that new approaches will be used to create new capacities for dealing with the question of sustainability outside the already existing qualities. No factors were found in this research that indicates that the general approach towards sustainability is thought in the lines

of creating a deliberative space. The need for a process of commoning, through a discussion based on the ethics and values of 'why' sustainability is important, is not recognized. The references to sustainability within nature interpretation activities have mainly been in connection to the approach of 'how' sustainability can be encouraged. The approach towards including the question of sustainability in nature interpretation activities have never been, and is still not, seen from the perspective of creating qualities of a deliberative space.

7.2. Nature interpretation – a clear defined institution or a work in progress?

When looking at the written version of the institution of nature interpretation, it appears to have been well-defined and well-organized from the very beginning. DNIS have through history offered clear definition of the objective and goal for nature interpretation. Also DRA is a well-established association with a well-defined vision for nature interpretation. Since the recent organizational changes in 2011 the organization had to find a new structure. The corporation of 'Nature interpretation in Denmark' was formed to replace DNIS and DOC has offered a clear (although broad) strategy for the development of nature interpretation in coming years. The organization of nature interpretation has from the very beginning assured that the institution of nature interpretation would develop closely connected to the development of society. Despite the original specific relation to environmental issues and problematics within society, nature interpretation has come to be involved in a wide range of challenges within society. At the time where nature interpretation was initiated, environmental issues were a prominent subject. In recent time however, other subjects have taken over, which also reflects the lack of focus on environmental issues within nature interpretation today. Therefore the development of nature interpretation has shown to be closely connected to the general development and approach of society. Nature interpretation has grown to be a well-known institution within Denmark and it is a general feeling that most of the population by far knows what a nature interpreter is. Through the concept of nature schools most children have encountered a nature interpreter through school related activities. This amount is expected to increase in coming years due to the possibilities created by the new school reform and the goal set by DOC that 20% of the Danish population should be using nature interpretation activities by 2016. However what nature interpretation is in practice and what it stands for has been shown to be a bit less clear.

As society is changing constantly, so is nature interpretation. The form of nature interpretation activities has at large been stable at being a guided tour in nature. However the goal and objective of the tours have undergone changes. The basic objective is set on 'the experience in and about nature' but nature interpretation was always intended to be more than that. The original intention of being a 'political tool within environmental management' is now broadened to the intention of being 'involved in the solutions to the challenges society is facing'. Nature interpretation has in the meantime been more disconnected to the political frame with the termination of DNIS in 2011. It seems that nature interpretation is still struggling to find its exact position within society. This was also indicated by the focus of the LEGO presentation on the yearly conference of DRA, which indicates that the nature interpreters are aware of the challenge of defining themselves. This challenge is further exemplified by a discussion between two educated nature interpreters, where despite the

same education and title they cannot agree to what nature interpretation is and can be. The broad goals put forward by DOC are creating opportunities but also challenges. The work of nature interpreters has become very broad, spreading itself over different sectors. This compounds the risk that nature interpreters themselves lose sight on what nature interpretation actually is – except for being a guided tour with nature as the scene. There is no specific common goal for nature interpretation, which allows the goals set by each individual employer to be dominant. The broad goal defined by DOC is presenting a very broad view on what nature interpretation is and thereby nourishes the feeling that nature interpretation can be many things. This constitutes a barrier towards creating a sense of a common goal among nature interpreters. Therefore, the question becomes whether nature interpretation can afford such a broad scope without losing sight of its core values and ultimately losing quality. Following, it becomes interesting to ask if a united specific goal for the institution of nature interpretation would stand stronger than a widely spread institution of nature interpretation. The answer to those questions however, lies beyond the scope of the data assembled over the course of this study.

7.3. Nature interpretation and the question of sustainability becomes a question of problematics within the democratic frame

It is interesting to see how nature interpretation has developed away from a focus of environmental issues by following the development within society. This has happened despite the fact that many qualities point towards environmental issues being an important aspect within nature interpretation. Nature interpretation was initiated to be a tool within environmental policy to handle the relation between nature and the citizens. Despite the shift of interest in society, away from environmental issues, nature interpretation is still about humans in relation to nature. The essentials of environmental issues are constituted by the human-nature relation making it evident that nature interpretation cannot be seen separate from environmental issues. Further, an underlying value of sustainability within both the institution of nature interpretation and the individual nature interpreters has been identified. It is a common understanding that nature interpreters in general see the topic of sustainability as an important topic in connection to nature interpretation. This imply for the question if nature interpretation is adding to the question of sustainability, yes or no? This question cannot be answered within the scope of this study but a few notions can be made. It has been indicated that the positive connection with nature established through nature interpretation activities to some extent is expected to create values towards protecting nature. While this is probably the case to some extent, this approach carries with it aspects of the present environmental discourse in relation to the general delusion of society. From nature interpreters own values and understandings of sustainability it is easy to deceive oneself to see nature interpretation as a positive actor towards sustainability. To this also adds the fact that being a nature interpreter is defined historically as showing and informing the citizens of the importance of nature, while in present time the activities have been discussed not to be sustainable in itself (in relation to the discussion of use of equipment). This exemplifies the general attitude of society that the environmental discourse has allowed. Therefore it can be argued that the underlying values are not enough. It is not argued that there are no positive effects resulting from the current practice but from the viewpoint of this study the discussion

of ethic and values becomes the needed approach towards the question of sustainability and thereby emphasize the importance of verbalizing or problematize the issues.

Regarding the challenge of verbalizing and problematize the question of sustainability, several barriers were identified. Four of the identified six barriers can be connected to nature interpretations current approach towards sustainability. The approach of 'how' the question of sustainability can be solved has shown to create the following barriers; sustainability is hard to make concrete and therefore hard to include; sustainability is connected to a risk of creating a negative atmosphere and a negative experience; sustainability is associated with a risk of creating a critical review of the nature interpreter; sustainability should not be included due to its political dimension. In this perspective, the combination of changing the approach to asking 'why' sustainability is important and using the qualities of a deliberative process has offered answers that seeks to deal with these barriers. Asking the question 'why' creates a focus of discussing the ethics and values on which the decisions surrounding sustainability needs to be taken. The deliberative process offers the qualities needed to have this discussion within a democratic frame. From this perspective, sustainability does not have to be concrete as it is about values and ethic, not scientific knowledge. The negative atmosphere might be created but it becomes a common responsibility and a process of commoning. And the critical review involves everybody, not only the nature interpreter, which again initiate a process of commoning. As to whether the question of sustainability should be included or not, due to its political dimension, it is argued that the democratic frame is the only legitimate frame to deal with this question and the connection is therefore inevitable. However this barrier had an interesting barrier attached connected to the critical dimension of sustainability.

As sustainability per definition is criticizing the current state, any discussion concerning sustainability is often received as criticism. Employers of nature interpreters are in some cases, as for example within municipalities, connected to political institutions that are driven by the incentive to avoid (negative) critical discussions within the public. These constellations therefore create incentive for the nature interpreter to focus on the good experience and knowledge about nature and avoid the subject of sustainability. In that sense, the structures of society pose a challenge when it comes to the idea of including a discussion of sustainability within nature interpretation activities. The qualities of the institution of nature interpretation are built on the same qualities as society in general which creates challenges towards creating a deliberative space. It is therefore not the barriers connected to including the question of sustainability that poses the challenge, it is the structures within the contemporary democratic frame that creates the challenge. From the idealistic idea of a deliberative democracy, the creation of deliberative spaces is essential, as unconstrained dialogue and inclusiveness creates the basics of creating a democracy where the participants in a discussion can be seen as equals and the contemporary power relation is eliminated within the discussion forum. However, it can be argued that creating a space free from power relations within the current structures of society will be difficult. The barriers identified in this study exemplify the critics often expressed towards the theory of a deliberative democracy. The theory has gotten much critics of being great on paper but too idealistic in reality. The approach used by nature interpretations towards the question of sustainability is not based on the theory of creating a deliberative space. However, because the institution is locked in the structures created by

society it is not only a challenge of changing the approach within nature interpretation; it is also the challenge of changing the structures of society. This leads us back to the critics put forward by Giddens, Beck and Elling, that the contemporary democratic frame is the creator of the problematics and is at the same time creating the barriers for finding solutions for these problems. This study has shown that up until this point, nature interpretation is developed with the same characteristics as these criticized structures and is therefore locked within them. The dilemma is that nature interpretation is formed as an internal part of the structures of society, while at the same time looked towards as an institution that can be included in solving the problematics of society.

However, the goal of sustainability should be seen as a process. While a creation of a deliberative discussion on the ethics of sustainability within the institution of nature interpretation might not lead to a process of deliberative democracy within current political frameworks, and change the system all together, such an effort would not be in vain. It is the structures of society that control the actions of the agents, however the actions of the agents are what create the structures of society in which the agents can act. This creates a circle of a continuous feedback process by which change is shaped. Therefore, it becomes essential to take actions that go against the present structures in order to initiate a change, even when the action is met with resistance and is unlikely to succeed in reaching the intended goal. If nature interpreters are willing to take the risks of being the frontrunner of such a process is hard to tell. However, from the written documented interest in adding to the question of sustainability as well as the identified goodwill of nature interpreters, the objective to do so could be argued to lie well within the perceived underlying value of the general nature interpreter.

7.4. Reflections on method

The use of qualitative research method has formed the findings of this report. Because in-depth interviews were conducted, only a limited number of participants could be included in the collection of knowledge. A larger amount of participants would have strengthened the empirical base on which the research is built. However, the choice of participants is an important factor with significant influence on the result. The participants for the interviews have been selected based on their central role within the organization of nature interpretation. It is evident that certain positions have specific knowledge and a general feeling of the organization that is created through years of interaction. This knowledge has therefore been viewed as representative for general understandings of the characteristics of the institution of nature interpretation. The selection of observations has been less selective (except for observation 2 at the yearly conference of DRA) as this method was meant to explore examples of real life situations. It can be argued that generalizations based on these randomized observations are only weakly supported and it is evident that more observations would improve the strength of the observed results. However the observations presented some real life situations and examples within present employments. These examples have given the research an important extra dimension although the examples form only a picture taken from one situation and despite the connection to the generalized picture, they should be seen as such.

It has been a challenge to conduct a qualitative research based on limited previous experience with the method. This factor of inexperience has affected the outcome of the research as the method is in fact, a work of art, as expressed by Kvale & Brinkmann (2009). The knowledge produced during the different interviews is all based on the same interview guide. The tool of the interview became more confident as experience was gained through the process. This fact would maybe have changed the knowledge production in some situations. However, due to the goal of the research, to create an overall picture following the interview guide, it is argued that this factor does not significant affect the outcome of the report.

It is evident that foreknowledge and worldview have impacted the result as own previous understandings and experiences is what new understandings is being based on. Therefore, it is also evident that the understandings expressed in this report are a result of an understanding built upon an amount of foreknowledge that cannot possible be expressed here and therefore is not a part of the analysis. However, based on the epistemology of this research everything is understood in a context which will therefore also affect the readers understanding of this written report. This constitutes an interesting factor and creates a numbers of perspectives that have and will have effect on the understanding of this report.

8 Conclusion

The dimension of sustainability has since the global definition of the term in 1992, been included in the institution of nature interpretation. Nature interpretation has up through history been seen as an important tool to mediate the question of sustainability to the public. The promotion of sustainability has also been identified as a goal for nature interpretation in several different settings. Despite this, the question of sustainability has never been a prominent part of nature interpretation activities and has only been included in activities to a limited extent. In present time, the question of sustainability is no longer specified in the goals for nature interpretation and the focus on sustainability within nature interpreters seems to be very limited. However the question is not forgotten and the dimension of sustainability is amongst nature interpreters, seen as an underlying value of nature interpretation.

The approach towards including the question of sustainability in nature interpretation activities has been dominated by the qualities surrounding the prevailing environmental discourse of society. Nature interpretation as an institution, have been developed as an integrated part of the established democratic frame and thus have come to approach the question of sustainability from a practical point of view, concerning which environmentally friendly techniques can be used by the public in their everyday life. As the present environmental discourse does not invite for a discussion about the underlying ethics and values for 'why' sustainability is important, the inclusion of these aspects have not been pursued. Likewise, an approach of creating a deliberative space and mediating a process of commoning has not been implemented.

The approach of creating a deliberative process, focusing on the values and ethics surrounding the question of sustainability, has shown to create qualities capable of reducing or avoiding the barriers identified with including the question of sustainability based on the current approach. However, with such an approach different barriers connected to the institution of nature interpretation and its role within society was identified. Nature interpretation is an institution built on the existing capacities of the contemporary democratic frame and is thus built on the same capacities that have shown to be insufficient in dealing with the question of sustainability. Nature interpretation is an institution caught in the structures of current society and the limiting capacities of the existing environmental discourse. It is therefore the structures within the contemporary democratic frame that constitute the challenge of including the question of sustainability in nature interpretation activities, more so than the barriers connected to the practical approach of doing so.

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Appendix 1

Interview 1: with Arne Bondo-Andersen d. 6.03.2015

I met Arne Bondo-Andersen in his house in the very south of Denmark near the German border. He moved there from Copenhagen 10 years ago when he retired and got married. Arne had a long life working with nature interpretation from different angles and is now still working voluntarily as a nature interpreter.

Arne started his career within the government in the late 60's and when the Ministry of the Environment started in the beginning in the 70's he was one of the employed. In the beginning of the 80's a problem with rising conflicts between people living in the cities and people living on the countryside developed. The different societies couldn't understand each other's perspective and it became evident to the Ministry of Environment that the interest and knowledge about nature was very limited. At this time international experiences had shown that nothing could replace human contact and communication. Therefore, instead of just focusing on information through leaflets and the like, the Ministry had interest in the concept of nature interpretation showing good results in USA with Freeman Tilden and in Scotland with Don Aldridge as forerunners. Arne was one of the people bringing the concept of interpretation and face-to-face communication to Denmark inspired by the concepts in USA and Scotland and after a study-trip to USA and Scotland it was decided to start the trial period of a Danish concept of nature interpretation. However the Danish version quickly developed beyond the concept in USA and Scotland to focus on involvement during events instead of using the 'traditional' one-way communication concept. In the very beginning of the trial period Arne was also one of the key persons in the process of finding a term and a name for this new Danish concept. The task was approached with a public competition with input of good names. However the term 'naturvejleder' was decided separately from the competition. Arne worked with nature interpretation until his retirement around 2005 and is still active.

From the view of Arne the Minister of the Environment has an important role to play as to how the environment is handled in general. In the start-up phase Christian Christensen was the minister and he had a lot of influence in the political sphere. During the last 8 years the ministers of the environment have not been able to demand influence which is part of the reason for the continuous economic savings within the ministry of Environment. As Arne expresses it 'no one would have taken money from Christian Christensen or Svend Auken'. In Arne's time NA had a lot of active nature interpreters that was doing tours and active nature interpretation. Now only a small number in comparison is hired and the events hosted by NA is in present time very few. In the eyes of Arne this development is somewhat connected and influenced by the capacity and interest within the Ministry of Environment and in particular with the sitting minister.

The development of nature interpretation is therefore described as, in some aspects, being closely connected to the political sphere. The education of nature interpreters started in 1987 consisting of seven weeks in total spread over two years, which is the same form as it has today. The partners involved in this process from the beginning were DOC and NA. The finance was from the beginning covered by 'Danske Spil' which was managed by the

Ministry of the Environment up until 1992 where the responsibility was given to DOC. DNIS was established straight away in 1987 and also a advising committee which was consisting of many different institutions as museums, agricultural organizations, forests organizations got established. This forum had been used as a contact to the employers and to discuss relevance and keep focus in the tasks of nature interpreters and the organization of the Danish nature interpretation organization. This advising committee was closed down in 2001 in connection to the change of government. Arne saw the loss of this advising committee as a loss for nature interpretation in Denmark. As a reaction on the loss of this forum a conference was held in 2003 to discuss relevant topics with the employers and as an attempt to establish a new forum for communication.

From Arne's point of view there have been less and less support and interest in the government towards nature interpretation during the last 8 years or so. Even though some things changed and was cut away with the change in government in 2001 the reduced support and interest is a product and reaction of the economic crisis in 2008. It was since 2008 that the economic situation effected the situation within the government which slowly have changed the role of NA and the attitude within the Ministry of the Environment. Since the economic crisis in 2008 the policy changed from focusing on 'save more, drive less, use less resources' till a promotion of growth. We all have to start spend more money and buy more stuff to get the economy up and running and the society back on track. These two approaches are of course very contradicting and this is one of the reasons that sustainability and the environment have not gotten much attention since 2008, because the political messages following the two topics have been very different. The global strategy went from sustainability to growth. From the Ministry of Environment there is 0,0% support and interest forwards nature interpretation as Arne express it.

The first change of DNIS since its beginning was in 1992 as a reaction to the Rio de Janerio conference about sustainability. Since this time it is attempted to include the question of sustainability in nature interpretation however is have shown to be 'damn hard' as Arne express it. The general approach to the question has been to teach the participants how to sort their waste and to talk about how to save more water in their everyday life. And at the same time the nature interpreters themselves arrive in their huge cars to the event. Still today the nature interpreters have not been able to crack the code and the attempts that in general are made is based on small practical solutions, as sorting your waste, which have not shown to have the biggest impact or influence. Another approach have also been to show the participants where the meat we eat comes from by for example killing, preparing and eating a chicken, with the underlying thought of showing the participants the connection between what we eat and nature. This approach have been discussed in international forums as being very controversial however interesting and is today in many cases not legal to eat anymore. However to connect this to the question of sustainability have shown to still be very hard and is not succeeded. Arne's own understanding of why it is so hard to include efficiently is the difficulty of making it concrete. Because the term 'sustainability' involves so many different aspects, for example also economic, it is hard to conceptualize. The focus of today's nature interpretation is the good experience in nature.

During the 90's the Ministry of the Environment tried to develop a form for interpretation that only focused on sustainability which was called 'De grønne guider'. However this initiative did not survive the change of government as Anders Fogh Rasmussen

closed it down in 2003. They were hired by the local municipalities and focused on environmental issues and sustainability with for example teaching the public to save more water. The approach of these guides was very practical.

For Arne the goal of nature interpretation has not changed since its beginning. Nature interpretation is there to lift the task of protecting and take care of the nature we have. To teach the public to care for, open their eyes and protect nature. Nature interpretation has to provoke the public and if the participants of an event have forgotten the event when they go home the nature interpreter did not succeed. This is luckily often the case that people remember the tours.

For Arne, Jan Eriksen, former director for DOC have been an important key person for nature interpretation, especially in the years where NA and the Ministry of the Environment have been backing out more and more. Arne experienced the reason for the reduced interest in nature interpretation as a general lack of enthusiasm and specific goals within the Ministry. The recent ministers have not have clear visions for our protected areas and nature in general which is also why there is so little focus on nature today and why nature interpretation is getting less support and attention in from the government. There is a lot of planning going on but nothing practical happening. And when there is no one on the top that is enthusiastic and care about it, there is no one to defend it when they cut back in the finance. As DOC is in charge of the financial support Arne is interested to follow the development now that Jan Eriksen, who really supported nature interpretation, is no longer director for DOC since December 2014 and he hope that the support that DOC have shown up until now will not change despite new directorship. Arne mention his thoughts about that it is never to know what the interest of the new director is and this might show to change the support of DOC but he doesn't know the new director however emphasize the importance of the interests of the director.

Interview 2: with Mette Åskov Knudsen d. 9.03.2015

Mette Åskov Knudsen is one of the main responsible for the education within IGN. She was hired in 1999 and has worked with the education since, first only with administrative tasks and since as one of the main responsible for the education and as a main teacher. Before working at IGN, Mette graduated as a biologist in 1993 and worked for two years as a teacher until 1995 where she was hired as a nature interpreter at Taarnby nature school. She took the nature interpreter education and worked as a nature interpreter until 1999 when she applied and got the job at IGN.

There have been different actors involved in the educational system up through the history but now it is DOC that have the full responsibility and IGN is hired as a contractor to do the education for them. When the education was implemented NA and DOC in corporation was responsible for the education with IGN as the responsible for doing the education. In 2010 DOC got the full responsibility as NA withdrew from the partnership. Just recently DOC revised the contract with IGN however the contract did not change much. So it went from being a corporation between DOC, NA and IGN to now being only DOC with IGN implementing the education on behalf of DOC. DOC have the full responsible but it is mainly IGN that develop and propose changes to the education, however in close contact with DOC who has to approve of it. A third part in the educational system today is DRA. Within DRA there are thematic networks and interest groups that arrange different courses for each other and help each other develop the specific interest area. These courses work as a sort of further education and therefore add to the educational system. DRA is also contributing directly to the education as educated nature interpreters is used as assisting teachers on each module during the education.

The first and longest course is taking place at IGN but otherwise the courses are taking place around the country to be able to cover as many different areas as possible. This makes sense because the students are coming from many different places and have their work area spread over the whole of Denmark. There are always two teachers on every course where either Mette herself or her colleague is the course responsible during the whole education. This was developed to insure a continuous learning process throughout the different modules and have shown good results since its implementation in 2005 where it changed from being separated courses without much progression and continuity. The other teacher that is present on a course is typical a local nature interpreter from the local area of the specific course. Before 2005 the teachers on each course was different and it was therefore hard to draw on previous learned subjects and discuss previous learning situations in a new context.

There have been a revision of the education in 98-99, one in 2005 and now again one in 2014/2015. They come every 8-10 years. From the first revision the written assignments between the courses was implemented and in 2005 the continuity of the different courses was in focus. Further have the subjects within the courses changed up through time and are developed much more frequent to insure relevance and development in connection with the changing times. As for example, one of the most reason changes has been the subject of the last project which changed into being focused on using the local network and including target groups that are not already involved. Many employments are project based with a timeframe of three years so it is important that the nature interpreter insure the employment by emphasizing the importance and relevance of the employment. This is a challenge for many

and especially since the economic crisis it is important for each nature interpreters to be able to define why their employment is important and how it can be an important benefit in relation to the specific area. The focus of the last assignment is therefore to establish why the employment is indispensable but also to develop the employment with for example finding new partnerships and funding possibilities.

In 2005 the secretary of DNIS published a report with a strategy for nature interpretation in the 21st century with the focus on how the problems within society can be incorporated better in nature interpretation. One of the focuses in this report was health and public participation in local communities where the approach to public participation and voluntarily actions is on a practical scale to either help the local community to for example establish a shelter in the local area or help them establish grassing areas where it is volunteers that work as care takers. Another focus is also the concept of outside-schools and how nature interpreters can help schools to go more out themselves and not be depended on a nature interpreter. The main focus within nature interpretation in present time is the new school reform and outside-school because the school reform focus on using the local area in learning situations and going out teaching. Also health is a present focus and how nature interpretation can influence and add to this societal problem.

The modules within the education are only a sort of introduction to the specific subject because one course is relatively short time and does not allow a deep focus. Furthermore there are so many different focus areas within the employments and everybody have to benefit from the courses. Therefore it is not possible to dig too much into each subject as for example some will never get to work with volunteers and public participation because their target group only is kids. Therefore the modules are working as an introduction and from there the courses and further education arranged within DRA or hosted by DOC becomes important and more specific to one topic of interest.

There is no examination or grading of the papers within the education. Because there are so many different people with different backgrounds and in different positions it is hard to set a certain form that some cannot live up to. And it is not necessary either – it is about learning and getting more tools to do the job that they are already hired to do. The students have to do the papers and be present on the courses to finish the education and call themselves certified nature interpreters. This is possible because the education system is a private education and is not directed by national rules as for example the university.

DOC just finished an evaluation of the education and the DNIS in general which is not yet published. It will be worked through this spring and any changes to the education will be implemented during the autumn this year. Based on this a new curriculum for the education will be prepared during autumn. However for more information on this DOC have to be contacted.

The primary challenge for nature interpretation in present time is that nature interpretation is a 'we can do it' and not a 'we have to do it' task for the municipalities. Therefore in periods with low economic profit nature interpretation is the 'wiped cream' that can be cut away more easily. Therefore it is a challenge for the nature interpreters themselves to make themselves more important. What the municipalities have to do will come first. The communication/interpretation seems not to be that important.

The working conditions for nature interpreters have been changing within the governmental institutions as NA seem to have made a change in their strategy to focus more on indirect

communication through information boards, leaflets and the like and offering less direct tours. In Mette's understanding economy has been an important player as the reason for this development. Despite this development within NA written communication is not a big topic within the education. The focus of the education is guided tours and direct face-to-face communication to different target groups.

The subject of sustainability was mentioned the first time by me, the interviewer. The answer was: It has been important earlier where it also was standing in the goal of nature interpretation but now it is much more in the background. Now it is about health and school and learning situations. It is important to some, as for example one nature interpreter in Copenhagen municipality and for others it is not important. However it should be something that every nature interpreter has in mind when doing activities by at least thinking about resources and reuse within their work. But the focus on sustainability changed for about 8-10 years ago when the focus went from environmental issues to especially health. The concept of sustainability is in the education as an underlying values as the courses for example is held places where local organic products mainly is used and resource use is considered. However it is not verbalized and articulated in particular but the experience seems to be an inspiration to many during the courses.

In Mette's understanding the concept of sustainability is not a part of the mainstream tours. It is not verbalized and included as a part of the tours. Some places it is but it is not an overall line of thought within nature interpretation. It did have a bigger focus earlier in time but it has been really hard to make it a common goal for nature interpretation. It is a guess from Mette that this could amongst other reasons be a result of differences within the background of nature interpreters so it is hard to make it to a common goal. It could also have something to do with the focus in society in general – that the focus on environment and sustainability is not big within politics when compared to the focus on for example health. And there is clearly a connection to the political focus in nature interpretation as it is here the funding is coming from. Therefore the focus is on schools, learning and health.

When asked about how nature interpretation will develop in the near future Mette thinks that nature interpretation will continue to be important because more and more research shows that being out in nature is beneficial in many aspects. But Mette at the same time mention that it is hard to say because if the political winds change the development could change in a different direction.

Interview 3: with Jes Aagaard d. 17.03.2015

Jes Aagaard grew up on the west coast of Denmark and is the oldest sibling in a family that was not academic minded. His father was a carpenter and Jes started with following in his footsteps after finishing the gymnasium. However after one year he felt that there was too little happening in his life. He then, after a few stopovers trying out the Environmental engineer education and finishing the education as a laboratory technician, ended up working in the laboratory at KVL (now called the Faculty of Science within Copenhagen University). Through the work with microbiology he decided to study biology starting this study at the age 25. During his studies he had a job as a guide in the Zoo of Copenhagen and it was through this job an interest for communication and interpretation of nature developed. He has been working for the Danish Nature Agency, NA, as a nature interpretation since around 1990. Next to his job in NA, Jes has also been chairman for the Danish Ranger Association in a number of years. He resigned this post when NA was no longer supporting this position as a part of his job.

NA was one of the main actors when starting up nature interpretation in Denmark and has up until 2010-2011 been actively involved. Before 2011 NA was one of the main actors and was the founder and driver of the secretariat of DNIS. NA had many nature interpreters working both with administrative tasks to insure development within DNIS as well as good communication to the public but also arranging a number of public tours. In 2011 the secretary of DNIS was closed down and NA withdrew themselves from many of the responsibilities they have had within the organization of nature interpretation. This happened in connection to the governmental change in merging the former 'By- og Landskabsstyrelsen' and 'Skov og Naturstyrelsen' to what today is The Danish Nature Agency. With this fusing Niels Christensen, former director of 'By- og Landskabsstyrelsen' got the position as director for the new Nature Agency. The former director for NA, Hans Henrik Christensen, had been very involved with nature interpretation and saw it as an important connection between the agency and the public. Hans Henrik Christensen saw nature interpretation as an important part of the agencies public profile and saw nature interpretation as a tool to get the public to know about and support the Agency and its work. However the new director had no connection with nature interpretation and did not see it as something important and therefore NA got disconnected as a direct actor of nature interpretation.

As an employee within NA Jes see himself of having the task to make initiatives that are supporting the sitting government's intentions and politics. However the approach to lifting this task has changed over time. The tasks of NA, as opposed to earlier, is now more about setting the frame for nature interpretation and experiences in nature in general, than actual face-to-face interpretation. This changed around 2001 when the government changed and the resources available for nature interpretation were cut. In 'the good old days' as Jes puts it, it was more about active interpretation with events forming the interpretation. However with the resources available today, the focus is to set the frame for self-use with establishing shelters, fire-places, ponds for fishing and so on connected with 'easy to absorb' knowledge to guide the guests through the experience. Direct nature interpretation is also still available however on a smaller scale and one of the initiatives connected to Amager Nature Center, where Jes is situated, is guided tours around the nature area every weekend in the summer holiday. Further NA is offering 30-40 tours a year on demand from a user payment

approach and is also involved in a few teaching activities within the university. However most communication is through folders, see figure 1, and guides for self-use. Also a homepage showing where shelters are placed for camping is developed and a new app is on the way while also Facebook is being used to reach the public as the resources for commercializing a very limited. However, Jes have a good feeling of the new director Hanne Kristensen who seems to understand the needs within society and have as for example reinstated the previous successful event 'The day of the Forest' which will take place the 10th of May 2015. For Jes this is an important step towards recreating a focus on gaining prominence to NA but also to the Ministry of the Environment. It is important to be seen in the public debate to be able to expect any support towards environmental issues in general and in times of election. And the focus within the society has changed up through time, not only within the political sphere but also within the public. There have been more focus on and understanding of environmental issues then there is today and in Jes understanding the economic crisis have had an impact on this development. The citizens have been more worried about paying their rent of their house then worrying about climate change and environmental problems. On the political level the subjects have been about economy, health and integration which become evident especially in the periods of election where these have been the subjects in focus, used to gain popularity. The role of nature interpretation however is still the same.

Nature interpretation has become a term and a concept known and established within nature interpretation. With this follows the question whether it is the concept of nature interpretation that is interesting or if it is nature itself. This is an important issue to be aware of and it can be very hard to separate. It is not meant to be the concept that is more interesting than nature itself as it is the essence of nature that should be communicated.

Before the governmental change in 2001, the minister of the environment at the time Svend Auken had developed an effective management and case portfolio to deal with environmental issues and saw nature interpretation as a tool to communicate nature to the public. With the governmental change in 2001 it was made clear that this would not be the focus and with the first new minister of the environment resources, funding and tasks was reduced drastically. Denmark has gone from being one of the front runners within EU on environmental politics to be a country that is lagging behind.

The present approach within NA towards nature interpretation is that it should focus on educational institutions with the target groups being in the age of 0-18 years. Within the governmental system the responsibility of this target group lies within the municipalities, which is then the municipalities that are dealing with the role of nature interpretation and decide how it should be used and to which extent. This seems to be a clear approach put forward by NA and the government. And the perceived target group is important as it is also defining how nature interpretation is being developed and how it looks like. Today nature interpretation in general is focused a lot on children institutions and families with kids, which within the material developed by NA have shaped the presentation of the material to fit this specific target group. About 10 years ago the director of NA, Poul Erik Nielsen, focused on developing nature interpretation and public communication in general within NA to be more service minded and provide the information wanted by the users more than to tell the story important for the interpreter. Poul Erik Nielsen was the driving force to move nature interpretation into being more minded on the needs of the participants.

Earlier NA really wanted the patent on nature interpretation with being able to make tours commercialized as having a nature interpreter guiding the event arranged by NA. This is not the case in present time as everybody that would want to contribute to public events arranged by NA, as for example 'The day of Nature', is welcome to make an activity. NA is setting the platform but the content can be performed by different actors.

When asked about sustainability in connection to nature interpretation, Jes feels that the thought of adding positively to a sustainability development have been there all the time also by the means of having this goal in the written aim for nature interpretation almost from the very beginning. This is still a goal in present time both within NA and DRA however Jes is also expressing thoughts about if this task is being lifted well enough. It can be questioned if nature interpretation manages to create a strong enough message. Back around 2005 an initiative from Svend Auken developed 'De Grønne Guider' which was interpreters focusing on environmental issues and sustainable development. This initiative developed, as Jes felt it, like 'De Grønne Guider' was sent out to tell the sad, negative story while the nature interpreters where there to tell the positive, happy story of nature. The approach of 'De Grønne Guider' became to be understood that they came to tell people what they did wrong and what they had to change in their lives. This seems to be the big challenge of sustainability that when you are talking about sustainability it quickly becomes about changing what is done now and thereby saying that what is done now is actually a bit wrong. However Jes feels that the concept of sustainability is somewhat present as he for example on tours explaining that in the management of the nature areas of Amager Nature Center there is no use of artificial fertilizer or pesticides and that there is no need to use it in own gardens at home. This task of sustainability however has become an even bigger challenge in the present use of mainly written communication. But it is the hope that the good experience that the frame of nature can give leads to a wish to preserve nature and take care of the environment. However this goal is unwritten in most of the frame setting of nature experiences. When asked more about if the concept of sustainability is an important part of nature interpretation it seems clear to Jes that if nature interpretation does not manage to include this concept it is a waste of good opportunities. However, he continues, it is important and a necessity to follow the needs and wants of society and focus on the task the society wants solved. Especially when a nature interpreter is hired in a certain frame it is not only up to the nature interpreter to develop activities as these have to stay within the goal of the employment. However it should be possible to still have sustainability as an underlying value within the activities.

In connection to the new school reform the effect and connection to learning of nature interpretation is somewhat more evaluated and is in focus. Is the investment within nature schools and nature interpretation worth the money and what is the outcome of the activities? Therefore it has become very important for nature interpreters to secure their own employment and make it clear what it can contribute with.

Is nature interpretation formed by society or is nature interpretation a part in forming society? Answer – hopefully it goes both way but we are very few nature interpreters so nature interpretation is probably not going to change the society for good. Nature interpretation is not setting norms but can in some cases influence some people and tell the story of nature. Jes sees the platform of nature interpretation as an important one in the future and hope that every municipality will have a nature interpreter attached. Municipalities are good because they have a better contact with the citizens than for example governmental

institutions as NA. This requires that nature interpreters manage to lift the task to show that they are important and that it would make sense.

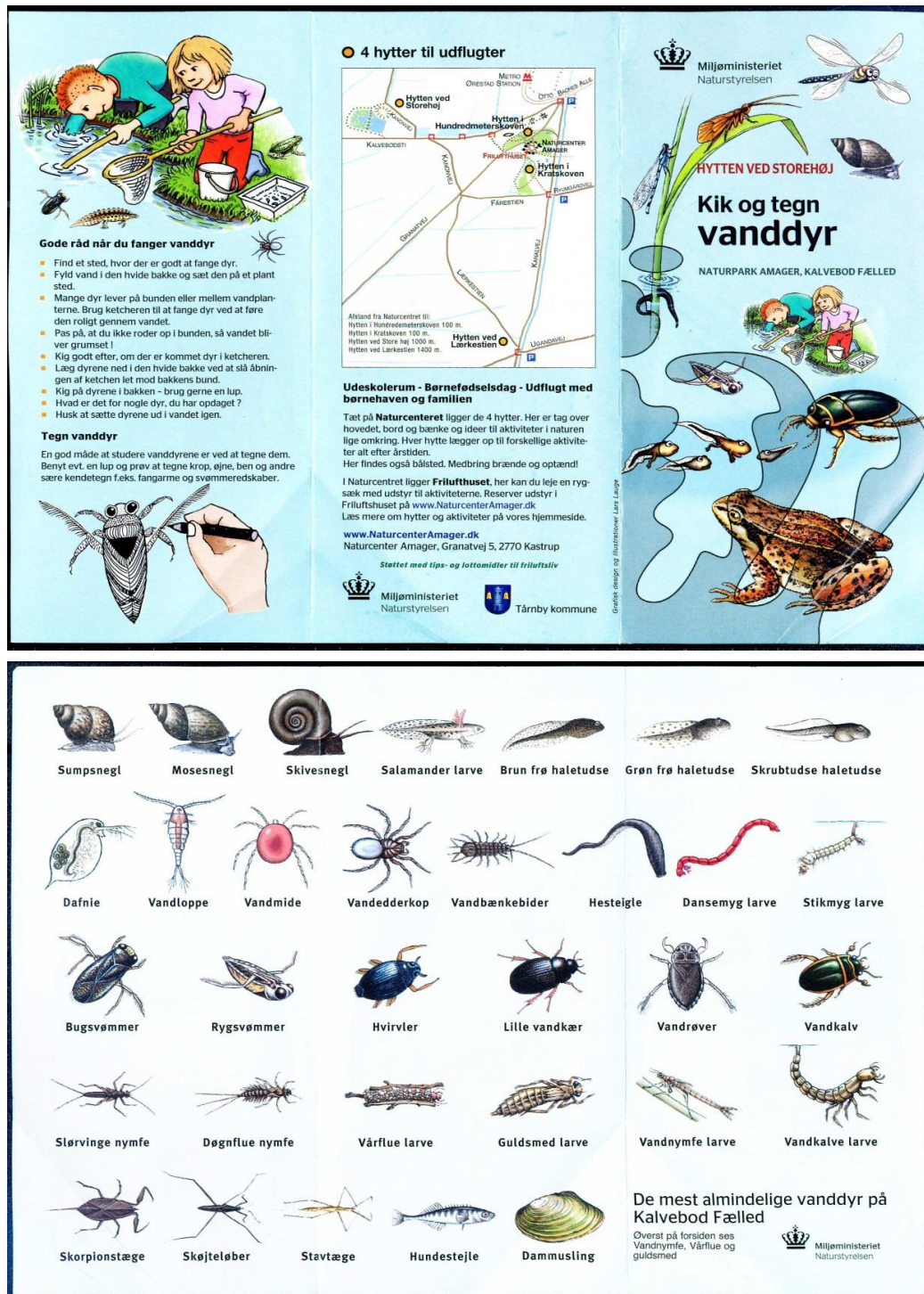


Figure 1: An example of an information leaflet developed by NA. The leaflets are available at 'Nature Center Amager' and are developed as public information to guide the visitors to a good experience in nature. The leaflet in its original form is three folded and is here presented unfolded with the top picture showing the front and back and the bottom picture showing the inside in open form.

Interview 4: with Sune Møller Petersen d. 19.03.2015

Sune Møller Petersen has been working within DOC for almost seven years. When he got the position he took the nature interpretation education and now as DOC is fully responsible for the education, Sune knows the education both from the practical and administrative perspective. As IGN has been hired by DOC to handle the education on behalf of DOC it is IGN that handle the education on a daily basis and suggest improvement.

DOC, NA and DRA have since 2011 made a new agreement where areas of responsibility have been defined. DOC has the responsibility for the certification of nature interpretation through the educational system which leads to the right to carry the owl to show a certified nature interpreter. Nature interpretation as such is not a protected title however the certificate of the owl is protected and bound to the education. However in the agreement between the three actors it is written that both NA and DRA need to be heard if major changes are to be made. Therefore it is not alone DOC that decide what happens within the educational system.

There is a continuous evaluation of the education where meetings with the two responsible, Mette Åskov Knudsen and Poul Hjulmann Seidler, of IGN are discussing possible changes. Also the objectives of nature interpretation have been changed up through time as for example when the perspective of sustainability was written in based on the Rio conference. Now we (DOC) are going to go through a new revision of the education based on an evaluation made by an external company. This evaluation is based on interviews with former students since 2009, interviews with the program directors of IGN as well as interviews with other supervisors within the education. Questionnaires have been sent to potential employers as well as some phone interviews have been conducted. The overall result of the evaluation is that the education functions well. As the education is not governed by ECTS points it is freer to have different structures and it works well that an employment is obligatory for admission into the education. The employment becomes a part of the education as the work that is done in between the courses is important experience for each student. Therefore it is also a result from the evaluation that the education does not wish to be included as a ECTS education and that the requirement of employment insure that not many educated nature interpreters is unemployed. Of course there is a challenge with the fact that not everybody that wants to can take the education and that the background of the students is so varied, from the forest worker with 7 years of school to the student with a Ph.D. in biology. Based on the evaluation it is not determined yet if the education will open up for a broader admission field in terms of background however the education will probably not see extensive changes in terms of the organizational framework.

The courses are very intensive and the distance between theory and practice is very short as practical exercise also is a big part of the courses. This gives a good interaction between theory and practice. The subject on the education is focused more on communication and guiding tours and you learn to be an interpreter with the focus on the performance and not so much on actual knowledge about nature. It is therefore a challenge to include in-depth knowledge about a specific topic as the focus is on the role of an interpreter. However the subjects might change a little bit based on the evaluation to insure a development within the education in line with the development of society and the employments. As for example is there a present focus within the municipalities on health and movement. Other examples are

also social challenges as for example how children with special needs or ethnical groups can use the nature in a beneficial way. A nature interpreter should not be an expert on health or integration issues however including these subjects is a way to make nature interpretation more relevant to present society if they are connected to the problematic tasks society is dealing with and can create cooperation within across sectors beneficial for these problematics. An example of using different sectors and creating cooperation is an initiative of 'outdoor moms' where a nature interpreter take moms with their babies out into the nature and create a social frame around the experience of and in nature. This task of involving nature interpretation in societal problematics is also stated as a goal in DOC's strategy for 2013-2020. Municipalities and especially the state have been cutting the finance to nature interpretation in recent years which have made this task even more important. For nature interpretation not to be cut back as the 'wiped cream' that is nice to have but not essential, it should be involved and add to the central problematics within the state and society. Of the same reason it has also become more important within the municipalities for example that the benefits of nature interpretation can be seen and the effects be documented. However it is found that it is hard to document the effects of nature interpretation activities. For example if trying to see if a child is acting more environmental friendly after being on a guided tour with a nature interpreter many other factors could also influence any given behavior as it is hard to separate the specific effect of the tour itself.

About 50 nature interpreter is subsidized through the funding of 'Danske Spil'. These are all obliged to report to DOC about the tours they do. Other nature interpreters are encouraged to do so as well but this is voluntarily. This database can be used to get an overview and based on the overview of themes within the tours it also shows that nature interpretation is about more than only nature. In 2013 a rapport was made on how nature interpreters contribute across different sectors, as for example within the environment or health. These overviews can also create a picture on what seem to be most relevant within nature interpretation is present time. Here is mentioned health and public participation but the environment, older generations or other groups with special needs, integration and social areas are mentioned. However Sune does not feel that there is one specific topic that overrules others as different nature interpreter's focus on different subjects. What is important is that each interpreter keeps developing and creates new possibilities within their own employment.

DOC have many different actors within their overall subject of outdoor life. However with a reference to the fact that nature interpretation is specifically mentioned in the strategy for 2013-2020, a spot many other initiatives did not get, nature interpretation is a focus within DOC. And as the strategy runs until 2020 this also shows that nature interpretation is not something that is planned to be out of DOC in the next coming years. Based on the unfinished evaluation there will be an increased focus in the education to prepare future nature interpreters to include the challenges in the society and to be better at including different actors and increase their frame of partners within their own local area. This increased focus lies within the present objective of nature interpretation in Denmark put forward in the strategy of DOC. In specific connection to the environment it is written in the objectives to communicate nature in relation to humans and humans impact on nature and to engage in the society which is actually including the issues of environmental problems and

problematic within society. And it is hard to engage in environmental issues if you don't know anything about it. Therefore this is an important task for nature interpreters.

The practical approach to the task of engaging in societal problematics is probably very different from each person and some probably do it more than others. Sune's own feeling is that there is quite some that do it because it is a part of being a nature interpreter and because it also makes the tours more interesting. The task also depends on the target group where many nature interpreters work with children in primary schools or even younger. In relation to the cutback of NA there are fewer public tours. All together there are about 500.000 registered participants spread on about 10.000 tours in present times. These numbers are hard to compare with previous numbers because of different registration methods but previous it was about 1 million participants spread on about 30.000 tours. Despite of the difference in methods there probably has been a decrease both in number of tours and in amount of participants, since the time where NA was still very active. In the strategy it is a goal to have 20% of the public using nature interpretation however not by only increasing public events. The personal communication and the meeting with an enthusiastic nature interpreter give something special. Of course it is good to also have written information but the enthusiasm that the nature interpreter often brings along is hard to replace. And the new school reform open up for some more opportunities for nature interpreters to be used across different interests, as for example the goal of more physical activity for school children. Initiatives within this opportunity is to be involved as an offer for the schools but also to make courses for the teachers so they themselves can feel comfortable with using nature more.

Projects that are supported by DOC have to be focused on adding something to nature interpretation in Denmark and are relevant and orientated towards innovation and development of initiatives. The goals set for the project have to be realized and documented after a three year period. It is the employer that applies for these subsidizing however often together with the nature interpreter himself. The amount is up to 125.000 kr. (pr. Year for three years) for a project within governmental organizations and up to 250.000 kr. (pr. Year for three years) for projects within the private sector.

In 10 years from now nature interpretation is hopefully an important actor within society who contributes within many aspects within society with a holistic approach instead of being 'just' about nature. It is known amongst the public and different organization that nature interpreters have good local knowledge and are skilled within connecting different networks and works like a mediator between different interest fields. To reach this it is important that nature interpreters focus on making themselves interesting and visible in the current and coming time.

DRA is just now initiating some investigations and projects. They have hired an external communication consultant to help them improve their communication as an association and then they have initiated an investigation to find out where nature interpreters work to see if there is some municipalities that does not have one at all for example.

Interview 5: with Jan Eriksen d. 25.03.2015

Jan Eriksen has been head director for the Danish Outdoor Council, DOC, for 25 years up until December 2014. Now he is the chairman for vildtforvaltningsrådet within the government. Before Jan started as director for DOC he worked for 4 years within DOC starting as a consultant. Since his childhood Jan has been in close connection with nature and outdoor life and as 12 year old boy he started a local nature club within the daughter organization of The Danish Society for Nature Conservation, 'Natur og Ungdom'. Later Jan became national chairman for the organization of 'Natur og Ungdom' next to his studies. In addition to this Jan have also been very active within, and still is, is the Danish Ornithological Association with his enthusiasm for birds.

In 1984, in the beginning of his work within DOC, the Ministry of the Environment in close corporation with 'Fredningsstyrelsen' and DOC initiated a process of looking into nature interpretation which led to study trips to USA, Scotland, Holland and England. This process led to establishment of the pilot project (of establishing DNIS) starting in 1987. Jan connects a comment to the chosen name, 'Naturvejleder'¹ as he does not quite see the name fully grasp the idea behind nature interpretation. It sounds promising but does not convey the full objective of nature interpretation to also include cultural aspects and he is missing the notion of culture in the name. However, after a successful trial period DNIS is made permanent in 1989.

Parallel with the process of starting nature interpretation in Denmark, DOC is negotiating with the Ministry of the Environment to take the full responsibility for distributing the funding given by 'Danske Spil'. Since 1948 and up until this point DOC had only been consulting the ministry with the ministry having the responsibility. In 1992 the full responsibility was given to DOC. In these negotiations nature interpretation was described as one of the main objectives in distributing the funding's and DOC is within the 'Danske Spil' obligations required to support nature interpretation with a certain amount a year. Since 1993 the funding has also been used as subsidies for wages. This subsidy is given in three year periods where it has to be evaluated by a written report, describing the relevance and development within the given position. The reason for the extended support and interest for nature interpretation within DOC is connected to the historical approach and attitude towards informing and teaching the public about nature and natural resources, especially with a focus on children and youth as this group seem to more and more lose the connection to nature. This has been one of the main focuses up through the history and already during the 60's was information campaigns spread out to schools. Therefore it seemed natural that DOC was interested in supporting this new initiative with the focus of communicating nature. This development within DOC was also nourished by the first environmental FN conference in Stockholm in 1972 where one of the main recommendations was to focus on environmental education within the public. Since this time, DOC has in different ways been involved in an international effort to develop initiatives within environmental education. Based on this process up through the 70's and 80's many other initiatives developed within DOC focusing on environmental education especially to children and youth. Many of these initiatives are still active today, as for example 'Blå flag', 'Grøn flag, grøn skole' and 'Skoven i skolen'. The Ministry of the Environment at the time was also involved in this process and it was this global

¹ Directly translated to English as 'nature supervisor'

focus on environmental education that led to the international interest towards nature interpretation and it was also based on a wish to contribute to this international focus the study trips exploring the possibilities of nature interpretation was carried out. Jan sees nature interpretation as one of the most successful initiatives made within Danish environmental politics. However the disconnection of people and nature is still growing despite the organizational success – and this development is of course based on many reasons.

From 1992 up until 2011 there was an equal corporation between NA and DOC about nature interpretation. This corporation as equals ended in autumn 2011 where the secretary of DNIS was terminated and the corporation as know until this point was ended. DOC got the main responsibility however NA still had some defined responsibility areas. In the autumn 2014 a new agreement was made where NA's responsibility areas was reduced even further as DOC took full responsibility for the education as well. Initiated by DOC, DRA is from 2011 drawn in to be a more involved player, taking further responsibilities. However Jan sees NA and DOC as being the parents of nature interpretation in Denmark, where DOC kept the child custody after a long separation. In Jan's belief the separation is due to financial reasons in NA and the ministry. This goes together with the fact that NA has reduced their amount of employed nature interpreters as well as offered public events and it seems natural that if their use and involvement of the actual product (the nature interpreter) is being minimized due to finance, they shouldn't have that much responsibility of the organizational level. Now many activities within NA are 'user pays' based.

Jan mention DRA's previous and expected future role in the development of nature interpretation as an in-process development from being minimum directly involved to now getting more responsibility. The fact that NA is not in the same way directly involved also gives the room for DRA to become more active and take more responsibility. They are now acting on behalf of their members and actively make suggestions to the educational development as for example. Before this they had 'just' their magazine and not enough contact with their members. The increased contact to members in present time is beneficial as for example with the organization of courses and further education of nature interpreters. Nature interpretation is of course following the development within society and should also follow the development. However in this process it is important to be clear about the objective of nature interpretation not to lose the overall reason to have it. The strength of nature interpretation is often the engagement and enthusiasm that the nature interpreter put to the given story about nature. However this story is basically harmless if not put in a political context. Then the message of the story told is not passed on or discussed. The question is if this discussion in one that nature interpreters dares to or want to take. This question is expressed by Jan himself and answered that in his belief, this discussion should be taken. However he also thinks that most nature interpreters do not take this discussion or set their events in a political context. Nature interpretation have been good to develop itself and broaden the use, especially with the focus on children and youth, however it is still too easy to stay with the audience that already like the content of nature interpretation as this audience often will give positive feedback. And everybody wants positive feedback.

The new school reform withholds possibilities for nature interpretation as one of the goals is for the students to be more outside and to be more active. Nature interpreters, especially the ones that are not within the government already, should take this possibility to show what they have to offer and to engage and be included in defining the development of

the new school system. This also connects to the strategy put forward by DOC in 2013 where it is set as a goal that nature interpretation needs to be more relevant to the society. Jan sees the possibilities within the school reform as an obvious area as the school reform have created a challenge that the municipalities have difficulties handling, which makes a contribution from nature interpretation highly relevant for the problems within society. However Jan recognize the huge challenge with this goal but emphasize the importance of the task, an importance also made evident by the inclusion in DOC's strategy as DOC is one of the main responsible for nature interpretation. It is the change that makes it such a huge challenge. Jan think that it is create that a lot of children is getting an experience within nature that they otherwise might not have experienced however it has to be more than that. It has to keep developing and try to include the problems of society and Jan sees nature interpretation as a part of dealing with environmental issues and problems concerning nature. And the discussion about environmental problems should be a part of nature interpretation and not see it as a goal to create consensus concerning these issues. Tommy, the chairman of DRA, have also put forwards some lines about their DRA's vision for nature interpretation and how they want to act in accordance to the strategy of DOC.

Nature interpretation have changed and in the right direction. There are some nature interpreters that dare to take up controversial subjects however it needs to be even more. They should be ready to take this challenge and contribute by creating the room for discussion. And there is not much fun in only discussing this with people that are already agreeing. The discussion needs to be brought up also within groups that do not have the same view and opinion as the nature interpreter him- or herself. To create this discussion it has to be brought in connection to the questions of environmental issues and not 'just' be a story-telling session. At some point it was discussed if the Danish word for nature interpretation, 'naturvejledning', actually should be called with the Danish term 'naturformidling'² as the form of nature interpretation more had the form of promoting nature more than asking questions and starting a discussion on behalf of nature. This discussion within nature interpreters seemed to be a reaction to the problematic of defining nature interpretation and what is actually is. However there is a very clear paradox within this discussion of if or if not nature interpretation should include and initiate controversial discussions. As for example, is the question of how controversial a nature interpreter working within a governmental organization can afford to be, important to keep in mind. If the subject of the discussion is criticizing the position of the political decisions this could lead to problems for the nature interpreter who is hired by the people whose decisions is discussed. This is a paradox. However despite this paradox the nature interpreter can still inform the public based on knowledge produced about, for example how to manage nature and what the advantages and/or disadvantages is of different management methods. This could start a discussion on how we want to manage our nature. As for example in the nature park north of Copenhagen the managers is being told to move old deadwood because it doesn't look nice. If people knew

² The Danish term 'naturformidling' is translated poorly into English with the closest translation as a nature communication or promotion in contrast with the Danish word 'naturvejledning' which is directly translated as nature supervision and commonly translated and understood as nature interpretation.

how important it is to biodiversity it might change the esthetic opinion of the public towards deadwood. Jan is convinced that nature interpretation plays an important role of informing and creating knowledge within the public however it should definitely also include the controversial subjects. It is knowledge, awareness and interest about nature that is lacking within the public but nature interpretation should also take up the controversial discussion.

The attention towards nature has changed not only in the public but also on the political level. Jan have met almost all Ministers of the Environment that have been since 1972 and there have been peaks with ministers that's have really made a difference. Previous Minister of the Environment Christian Christiansen in the 80's and Svend Auken in the 90's made environment an important issue within the political sphere and insured a high positional rank within the government. Today is the Ministers of the Environment quite low in this positional ranking within the government which shows low political attention towards the environment. This political change came with the governmental rightwing change in 2001. It was expected to see an increased attention to the environment with the change to a leftwing government³ however this increase have only been very small up until this point. This development shows the reality within the public which is a very limited interest in environmental issues. This problematic have to be a challenge that is taken by the Danish nature interpreters and Jan sees them as an important key factor to lift this challenge. Jan further mention that the present Minister of the Environment is doing a good job however the interest within the public is not there. And it is this interest that nature interpretation has to participate in creating. The question is if the nature interpreters themselves has taken the decision whether to be a part of this challenge or to lean back and wait. And it is important to note that the nature interpreter not is asked to have the answer for the question but 'only' to start the discussion about the question.

The focus on children and youth as target groups is positive but problematic as children can be very affected by the fact that the nature interpreter is unknown to the children. Therefore it could be a good initiative to include for example grandparents as it is sometimes more effective and meaningful to have this known and secure frame around the situation of an event or guided tour. This could open up for a secure environment where the grandparents are involved in communicating the issue. How can these groups within society be included in the process?

A typical Danish approach is 'we have to do something, however it is not me that have to do it'. Therefore it is interesting to see when DOC is going to succeed in realizing some of the goals set for the development within nature interpretation as such a development hopefully would include the previous discussed problematics. How can we within nature interpretation create this room for a discussion of political contradictions? Jan thinks that many nature interpreters are already doing this, the question is if they are doing it good enough to a point where the participants next time they are standing by the voting stand will think back of the points made brought up on the tour with the nature interpreter.

When looking at the development it is a reality that nature interpretation have not yet managed to include this problematic efficiently despite that it has always been a part of their objectives. To be able to truly include the problematic it has to be included as a political problematic more than just a problematic of nature. Jan have a feeling that if it gets a

³ In 2011

bit too controversial many nature interpreters do not feel comfortable with it and would rather not include it. An example of this, when one of the proposed new national parks got rejected, Jan used the 25th anniversary to ask the gathered nature interpreters their opinion on this rejection. Some was of course disappointed about it while others were of the opinion that nature interpreters should not have an opinion on this as it was a political decision. In Jan's understanding nature interpreters and DRA should have an opinion and state that they think it is a loss for the Danish nature especially because nature is the very fundament of nature interpretation. This dilemma became a further discussion during the anniversary about whether or not nature interpretation should be involved in such a political debate. Jan hope that the new position of DRA within the organizational framework of nature interpretation can initiate a debate within DRA about which position nature interpretation want to have in connection to society. And in Jan's understanding this have become easier now that NA, as a political institution, is not as directly involved as earlier.

Based on own experiences as an enthusiastic ornithologist Jan believes that the topic of nature creates an efficient base for including humans in relation to nature, which often can open up for further questions about this relationship and thereby include environmental issues.

It is not the education that should be changed it is more for example DRA that needs to take action. Or use the new possibility of the school reform. However the challenge lies with the nature interpreter itself to develop this room for discussion. And this is a process that has to be pushed and this push should come from the top of the organization, for example DOC and DRA. This process will take time. But it is a good time to have to define how this process of further development will look like – it is well established and the changes within the organization is changing opening up for new approaches.

Appendix 2

Participatory Observation 1: Chicken tour for kindergartens and daycares, Marts 2015

This event took place at a nature school with an educated nature interpreter performing the tour. The concept of a chicken event connected with Easter had become to be a tradition however this year a new concept in a form of 'open house' was tried out. This was opposed to the previous setup with a sign up for the tour. The new concept was made to be able to give more of the institutions, connected to this nature school, the opportunity of going. With the open house form, the different activities are set up mainly for self-use with the form of different stations where the pedagogues could do the activity without the nature interpreter around, see figure 1. This was possible as many of the pedagogues have been there the previous years and knew how it would be. The nature interpreter was therefore present at one station, the station with the living chickens, all the time. Here the children were told about the chickens, what they eat and how they like the heating lamp and the children had the opportunity to hold the chickens.

Own interpretation of the observed situation

The different stations focused on different aspects of the egg and the chickens with the focus of experiences, learning and information. A connection between eggs, chickens and humans was also made as it was possible to make an omelet together with the children.

In relation to the topic of sustainability and inclusion hereof it was mostly left to the pedagogues to create this connection as the time with the nature interpreter was limited. However the set-up of the event seemed to be more focused on information and to give the children a good experience by showing them cute small chickens, which was a success amongst the children. The children seemed to enjoy the trip to the nature school. The information given by the nature interpreter about the chickens was focused on information about the animal and its life. The information given was adapted to the target group of children up to approximately 3 years old and it is my understanding that the information given to this age is limited to simple understandings and the experience in itself is emphasized more so than specific knowledge. This event gave me an feeling that there is a limit of which information can be given to children and understood by children this age, meaning 3 years and younger.



Figure 1: The top left picture shows the setup of a 'chicken nest' with straw and plastic eggs that can be opened to show the development of a chicken within the egg. The top right picture shows the setup with living chickens that the children were allowed to hold. Here was a nature interpreter present at all times, telling the children about the chickens. The bottom picture shows the setup of an omelet station where the pedagogues could make an omelet together with the children.

Participatory Observation 2: Year conference and annual general meeting of the Danish Ranger Association d. 8.04.2015

I was lucky to have the possibility to visit the yearly conference of DRA for an afternoon and evening. I arrived for the annual general meeting starting in the early afternoon. After the meeting I joined for dinner together with all the nature interpreters participating which gave me the possibility to talk with a few nature interpreters sitting at the same table as me. After the dinner there were arranged for a relaxed time with different entertainment and activities outside. I had arranged for an interview with the, up until this general meeting, chairman of DRA, Tommy Jensen. We talked outside in the atmosphere of the activities and after this talk I walked around for a little while, participating in activities which gave me the possibility of one more informal conversation with a nature interpreter.

The annual general meeting

Beside the formal necessities connected to an annual general meeting such as presenting the annual budget and selection of a new board, the sitting board gave a general presentation of DRA's work and areas of specific focus.

One of the most important focus now and in the coming year is communication and public visibility. DRA have developed a communication plan and an extern communication consultant is hired, financed by DOC, to develop DRA's communication and visibility within the public. The consultant will work with the homepage and other initiative to make the communication of DRA better and asked the nature interpreters themselves to reflect on the question 'what characterize me as a nature interpreter? What is my role?'

Next to this overall focus there is bigger and smaller national projects within the association that will have the focus in the coming year:

- 'Naturens dag' (The day of nature): Is carried out by NA and DRA would like to have more influence on and participate more in the event.
- 'Krible, Krable' (Insect tours for children): A national project carried out in cooperation with Danish national TV. Have received 1,7 million from Nordea fund the next two years to focus on developing these insects tours around the country.
- 'Vild Mad' (Food found in nature): DRA is a partner to this independent project that focus on food found in the uncultivated nature surrounding us all from a sustainable perspective.

In addition to this the new school reform was also mentioned as an important opportunity to develop new initiatives with nature interpretation that can help lift some of the new tasks put forward by the reform.

After the presentation of the yearly budget the suggested action plan for 2015/2016 was presented with the following statements:

- Increasing visibility in general
- The 'Krible, Krable' project
- Establishment of new editorial board and development of the members magazine
- Visibility and participation in regards to the new school reform

Appendix 2

- Increasing amount of members and increased focus on new owl's knowledge about the association
- Better cooperation and visibility in regards to the event 'Naturens dag'.
- Continued cooperation and development of the project 'Vild Mad'.
- International cooperation with a study trip to Germany 2016.

After the general meeting dinner was served as a buffet which offered the possibility of networking. I found I table to sit with other participants, all working as nature interpreters. The conversation fell of course on the topic nature interpretation. I spoke in particular with the nature interpreter sitting next to me which formed what I have here called 'Informal conversation 1'.

Informal conversation 1

The nature interpreter I talked to during dinner (here called NI1) work at a nature school where the focus is education. This means that the tours and events within this nature school are planned based on the learning goals within the school. The teachers want to reach certain learning goals and therefore the tours are chosen from a catalogue but forward by the nature school, so the teachers can chose which tours to book in accordance with their learning objectives. As for example, the class needs to learn about two different animal's anatomy, which would then be a theme for a tour. From NI1's perspective there are many nature interpreters working in connection to nature schools however there is of course also employments with no contact to nature schools. The different nature schools have many different focuses which can result in different experiences connected to each school. It is NI1's experience that most nature interpretation activities often focus on the good experience more so than sending a message of for example sustainability (this was mentioned after I had explained what I was writing about). NI1 express an understanding that even if the focus within an event is sustainability and the environment this focus would sought to be reached through the good experience. So maybe the activities would be connected to the subject of environment but the goal of the tour would still be mainly on the good experience.

After dinner it was time for the planned evening entertainment outside. This took place on a big grass field with different stations of activities so it was possible to walk around between different stations. This gave me the possibility to meet other nature interpreters and I ended up talking with another nature interpreter while standing by a fire looking at the cooking activities taking place. This formed what I have here called 'Informal conversation 2'.

Informal conversation 2

This nature interpreter, here called NI2, also worked at a nature school however in a whole different area of the country compared to NI1. The development within NI2's nature school was towards the learning goals of the schools. When developing new tours the starting point is to look at what the goals for the teachers within different age groups of children. From this approach it is assured that the schools find the tours relevant which insure more participants and a higher demand of tours. After I had explained my focus on sustainability and

environmental issues in relation to nature interpretation the conversation focused on this. From NI2's perspective not many tours focus on the environment, at least it was not a focus within NI2's work area. Further there is not much connection between the different tours which then loose the connection to the bigger picture and the question of nature in general. The focus is on learning goals within the schools and to give the children a good experience in nature. And with the good experience it is the hope that some will think that nature needs to be taken care of so it can be enjoyed again another time. In NI2's opinion this is a shame and after thinking about it, the question of sustainability should be included in the events. However NI2 see it as a challenge that the background of nature interpreters is so broad. Some have no background knowledge about nature and environmental issues which is by NI2 identified as a problem and a challenge towards including a discussion about sustainability. Nature interpreters that feel they do not know enough about it would feel uncomfortable with bringing up the subject. NI2 suggest that maybe a few standard phrases on the topic of sustainability could be developed, which then always should be included on any tour hosted by a nature interpreter.

From the perspective of NI2 sustainability does not seem to be an underlying value of nature interpretation in general. NI2 has the feeling that all nature interpreters share a connection to nature and a common understanding that nature is important and should be taken care of, however the understanding of sustainability is for NI2 different and the connecting between sustainability and nature interpretation might not be obvious to all. However in NI2 own understanding it would make sense to include a discussion of sustainability in nature interpretation activities.

After this conversation it was time to find the, at the time, sitting chairman of DRA that I had arranged an interview with prior of going there. Before dinner we agreed to meet outside during the activities to do the interview.

Semi-structured interview with Tommy Jensen, former chairman of DRA, not recorded

Tommy Jensen is working as a nature interpreter in the north of Denmark. Tommy has been chairman for DRA since 2013 until present year 2015, where he at this general meeting passed the position on to Peter Baloo Laurents.

In Tommy's perspective DRA has an important role, especially in recent years as their mandate and influence on nature interpretation as an institution has been increasing. However Tommy sees DRA as an association and not a union working for the rights of nature interpreters despite their increasing influence. The aim of DRA is to represent their members and create a network and a feeling of cohesion. DRA increased influence is given through the development of the corporation 'Nature interpretation in Denmark' that replaced the former DNIS where DRA was not involved. It seems easier now for DRA, as an association, to have more influence on the institution of nature interpretation now that the political agenda of NA I limited.

When discussing the question of sustainability in relation to nature interpretation it is in Tommy's understanding not a topic that is included during activities. At least it is included in a very limited extent. The focus on environmental aspects in general is hardly present as environmental issues are not on the public, or politicians, mind at the moment. For many nature interpreters it makes more sense to focus on what is the focus within society. That is what people are interested in. However in Tommy's understanding the

discussion and connection to environmental issues should be included in nature interpretation events. Tommy himself has good experience with making connections to the environmental management of the landscape. On his own tours he likes to focus on the history of the landscape and draw in a discussion on the consequences it has when we change and manipulate the landscape. However he acknowledges the difficulty of connecting the nature interpretation situation with a message on environmental issues. Tommy mentions that many nature interpreters do not want to create a discussion within the group. Further, when directing the topic directly to the question of sustainability, many nature interpreters seems scared that the participants of the event will feel evaluated on how environmentally friendly they are. This is not the feeling that the nature interpreters want to convey. Nature interpreters in general often focus on creating a good experience within nature to by this create a positive relation between nature and the participants. Therefore is the subject of sustainability and environmental issue for many not included as the risk of creating a negative atmosphere is thought to be very high. However Tommy thinks this is a shame as it for him is important issues in relation to nature interpretation.

Participatory Observation 3: A one day course for pedagogies about insect activities for children in kindergartens and daycares. Held by a nature interpreter connected to a nature school. April 2015

This event was offered by a nature school to pedagogies in their municipality with the purpose to give the pedagogies some tools to feel confident with taking their children out into nature without having a nature interpreter there. The activity in focus was insects and how to use the nature areas close to themselves to find insect or do other activities with the children outside. Therefore the course was taking place in a kindergarten within the municipality. There were 5 pedagogies participating.

The course was spread on a day from approximately 9am till 2pm and was divided in two parts. The first part before lunch focused on giving the pedagogies some tools, examples and practical knowledge on how to make insect tours with their kids, even within their own playground or in the nearby parks. This took place in the playground of the institution and started by presenting the different equipment that could be used to find and examine the insects. The pedagogies were showed how to make their own insect-catcher from a plastic container, two tubes and a small piece of net. The children can then suck on one tube and suck the insect up through the other tube, into the container. Also traps, nets and a white cloth were explained as ways to catch insects. Then they were all given some white plastic trays and spoon to go and collect insects. When the insects were caught different method and books was described to be able to find out which insects was caught and to learn more about them through the books. Also a telescope and small magnifying classes was introduced so the children can see the insects in a close up. The second part of the course focused how to use the nearby parks to make activities obtaining the learning goals within the reform for institutions working with children. This took place in a nearby park where the pedagogies were asked to reflect on the learning goals handed out by the nature interpreter in relation to using the parks. The focus was especially how to use the parks to obtain the learning goals that does not implicit invite for outdoor activities.

Informal conversation with the nature interpreter hosting the event

When biking from the nature school to the kindergarten we were talking about the development of nature interpretation in general. Sustainability was mentioned as a topic that is hard to include because it seems so broad and undefined. It is hard to make concrete and therefore hard to include. At the same time there is not really any focus on environmental issues at the moment in general. The focus seems to be on health, movement and the new school reform. This is the topics that are important in current time and therefore the topics that the 'customers' of nature interpretation wants to have focus on when participating in events. And the goal of adding to the question of sustainability or other environmental issues is not a common goal for nature interpretation in general which makes it easy to just focus on the topics that seem most important in the moment. It is the visions within the job and the goal for the specific nature schools in regards to their 'customers' that is also deciding which topics are included in the events. Thereby nature interpretation events is much effected by what the 'customers' wants. To this notion it is mentioned that maybe nature interpretation

has to figure out what they want to be and what they are good at. This is mentioned with a reference to a presentation by LEGO during the yearly conference of DRA just the week before. The presentation from LEGO was giving the message that it is important not to lose track of the core of what a corporation is. LEGO went through a crisis some years back as sales just kept getting lower and lower around the world. Therefore LEGO tried to develop their concept to reach new customers and regain the interest of old ones. However it became clear that LEGO, by this, moved too far away from the core of what LEGO is. The well-known concept of LEGO was suddenly confusing and mix of different concepts. This is relevant for nature interpretations development just now. Nature interpretation in general is trying really hard to take in new perspectives to reach broader and be more interesting for different sectors. Of course nature interpretation has to develop however it is a point that it should be careful not to lose the core of what it really is. Nature interpretation has to keep in mind what the strength of the concept is. And if this is to 'just' take children into nature and give them a good experience it is fine. But it would be more interesting if it could become the important tool it was always intended to become.

Participatory Observation 4: Planting seedlings with a kindergarten – Environmental and nature school, April 2015

I went to this event a Thursday morning in April. The event was for a kindergarten and was one event in a process of events working with plants. In this event the kids were taken out into the city to plant their homemade seedlings in a bed surrounding a tree nearby their kindergarten. During spring and summer the kids will return to this bed to water and take care of their plants and to see them grow.

To begin with, the soil was prepared together with the kids. It was loosened and grass and garbage was removed. The first seedlings were planted with big interest, digging a whole, taking a plant from their homemade seedlings, placing it in the whole and covering the whole with soil. After a few plants most kids lost interest and were playing around a little bit or drawing on their fence. But all the plants got planted and the kids helped watering them afterwards, before going home – it was getting cold on their fingers.



Figure 3: Pictures from the event with the children, planting seedlings in roadside bed. The top left picture is showing the process of preparing the soil. Each kid were helping loosening the soil with a stick as well as collecting unwanted garbage items in a bucket, as seen on the picture to the right. On the left picture in the bottom the nature interpreter is explaining the children that the fence, which they have been drawing on themselves at a previous event, will be put up to protect their plants (own pictures).

After the event I went back to the base of the nature school and talked with the nature interpreter doing the event which is also whom that are in charge of the project and the nature school.

Informal conversation with nature interpreter in charge of the Environment and nature school

Our conversation started with focusing on how this specific environmental and nature school focus on the environment and how it reflects in the events made by the school. Most events are focused on kids from 0-6 years. The school focus on how each event is carried out. Which materials are used, how the materials can be limited or based on local reuse and waste materials. Some events are just one event but the process of more events stretching over a period of time is also scheduled to insure an increased learning process. To further nourish the experience it is a goal to give the children something to take home. The thought behind this approach is to inspire involvement of the family and to extent the effect of the events into the everyday life of the children. The school focuses on the process in the development with the children and emphasis the importance of using local network to minimize the environmental impact and use the local surroundings.

From this topic the conversations moved along more general aspects of nature interpretation in relation to this specific environmental and nature school and how they try to manage the question of environmental issues and sustainability within nature interpretation. From our conversation a discussion developed about the topic of sustainability and how it is and should be managed. One point that was emphasized was the general use of equipment and the resources spend on hosting tours. Each school has their own set of loupes to be able to host insect tours as an example mentioned. The signal send to the participants in this situation is from this perspective not very sustainable. It was expressed that the use of material within nature interpretation should be considered and is an important aspect within nature interpretation and the signals it is sending.

The political and democratic perspective of sustainability and the role of nature interpretation within this aspect were also discussed. From our conversation formed a discussion on why it seems to be so hard to include sustainability in nature interpretation. Different aspects was mentioned:

- It gives a negative feeling
- Too big of a challenge – gives an overwhelming feeling
- The nature interpreter lack knowledge and inspiration
- The nature interpreter don't want to open up for what might lead to a discussion
- The nature interpreter don't feel comfortable with drawing in own opinions
- The nature interpreter don't know how

It was also discussed if sustainability should be a part of nature interpretation in the first place. It was mentioned that some nature interpreters do not think sustainability should be included or discussed as it is a political topic. This could in some cases be seen in combination that some nature interpreters fear that the discussion would become about political standpoints and want to avoid involving such in events about nature. Other seems to be of the opinion that environmental issues are simply not the task of nature interpretation. It is expressed that

Appendix 2

nature interpretation is not going to solve the global problem of sustainability however nature interpretation should be seen as an important actor in the process of trying.

It was mentioned that it is important that nature interpretation as an organization determine and describe what nature interpretation is and should be. Amongst educated nature interpreters there is no cohesion on what nature interpretation is. To this was mentioned an ongoing discussion between this nature interpreter and a nature interpreter connected to a different nature school within the same municipality. The two nature schools have found it difficult to cooperate as they do not agree on what constitute nature interpretation. They are not agreeing to each other's approaches and one is questioning if the conducted events of the other can be seen as nature interpretation. They are however both educated nature interpreters and his hired as such within the same municipality. I was sent further documentation of this discussion as written email however for the example of this situation the content of these emails is not necessary and is therefore not included in this appendix.